

## 4.3 Biological Resources

This section of the EIR for the Master Plans describes the potential environmental impacts associated with biological resources, including special status species, sensitive natural communities, wetlands, wildlife movement corridors, and conflicts with local policies and plans protecting biological resources that may occur as a result of the proposed Master Plans. The biological resources study area for the Master Plans encompasses the service area planned for CIP project developments, which includes portions of the cities of Carlsbad, Oceanside, Vista, and San Marcos.

As discussed in Chapter 4, Environmental Analysis, the following CIP projects have been adequately addressed in previous CEQA documents and are not included in this analysis: Sewer CIP Projects SR-6, SR-10, SR-25, N-1, N-2, N-5, N-7, N-8, N-11, I-3, I-4, I-5, and I-6; Water CIP Projects 7, 8, 40, and R6; and Recycled Water CIP Project ES3.

### 4.3.1 Research Methods

Information regarding biological resources that occur or have the potential to occur within study area was obtained from a search of biological resources databases and a review of pertinent literature, prior environmental documents, and aerial imagery. No site-specific biological surveys, vegetation mapping, special status species protocol-level surveys, or wetland delineation surveys were conducted in support of this programmatic level analysis. The following provides a summarized list of the primary resources consulted for the preparation of the biological analysis:

#### *Databases*

- Calflora Plant Observation Library (Calflora 2012a);
- CDFG Natural Diversity Database (CDFG 2012a);
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2012);
- Consortium of California Herbaria (Consortium 2012);
- SanGIS Interactive Map and GIS Data (SanGIS 2012);
- U.S. Department of Agriculture (USDA) Web Soil Survey (USDA 2012);
- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS 2012a); and
- USFWS National Wetlands Inventory Wetlands Mapper (USFWS 2012b).

#### *Literature Review*

- Final Carlsbad MHCP Subarea Plan, herein referred to as the “Carlsbad HMP”, including regional mapping data for vegetation communities and conservation areas (City of Carlsbad 1997, 2004, 2011a);
- Final MHCP Plan (AMEC et al. 2003);
- CDFG State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFG 2012b);
- CDFG Special Vascular Plants, Bryophytes, and Lichens List (CDFG 2012c);
- CDFG Special Animals List (CDFG 2012d); and
- USFWS Species Lists for San Diego County (USFWS 2012c).

Biological resources information obtained from these sources applies to the entire study area as opposed to individual proposed CIP project sites. In general, the research identifies vegetation communities, special status species, critical habitat, and other sensitive biological resources with the potential to occur within the study area. Furthermore, special status species, habitat, and other

resources identified in databases and relevant literature may extend beyond the study area or outside of CIP project sites; therefore, some of these resources may not actually occur within the study area or CIP project sites. As such, the biological resources discussed in the following sections are described at a programmatic level and may not necessarily occur within individual CIP project sites.

### **4.3.2 Environmental Setting**

The study area for the Master Plans is centralized around Carlsbad, which is generally located along the Pacific Coast in northern San Diego County. The study area also encompasses portions of the cities of Oceanside, San Marcos, and Vista. The bioregion that generally defines the area is influenced by a coastal Mediterranean climate. The area's climate, coupled with coastal geological formations and land features, give rise to an array of habitat types and species that are unique to coastal southern California. Although past agricultural practices and urbanization have resulted in the conversion of land within much of the study area, there remains a few larger blocks and linkages of undeveloped land that provide important habitat for plant and wildlife species that reside and migrate to and from the area. Larger habitat blocks exist in and around the three coastal lagoons that occur within the study area: Agua Hedionda Lagoon, Batiquitos Lagoon, and Buena Vista Lagoon. Additional undeveloped areas occur on some of the higher-elevation, steeper-sloped, inland portions of the study area that have not been subjected to intense agricultural practices or development. Grasslands, coastal sage scrub, chaparral, riparian woodlands and forests, and riverine, palustrine, and estuarine habitats all contribute to the overall biological value and aesthetic appeal of the study area.

#### **4.3.2.1 Regional Resource Planning Context**

##### **Carlsbad HMP**

The large majority of CIP projects being considered under the Master Plans would occur within Carlsbad; therefore, the Carlsbad HMP provides a substantial regional context with respect to the environmental and regulatory settings for the biological resources evaluation of this EIR. As a participant in the Natural Communities Conservation Program (NCCP) and MHCP subregional planning effort, the City prepared the Carlsbad HMP which documented a comprehensive, citywide program to identify how, in cooperation with the USFWS, CDFG, and CCC, the City will preserve the diversity of habitat and protect sensitive biological resources while allowing for development consistent with the Carlsbad General Plan and Growth Management Plan. The preparation of the Carlsbad HMP involved an intensive inventory and assessment of biological resources that are known to occur within Carlsbad, in addition to the establishment of a regulatory framework and compliance process for addressing development impacts and the management of sensitive biological resources.

The Carlsbad HMP is one of several MHCP Subarea Plans prepared in North San Diego County pursuant to the California Natural Community Conservation Planning Act (NCCP Act); however, it is the only MHCP Subarea Plan to have been adopted to date. The City approved the Carlsbad HMP in 2004 and adopted ordinance regulations in Chapter 21.210 (Habitat Preservation And Management Requirements) of Title 21 (Zoning) of the Carlsbad Municipal Code as a condition of receiving approval from the CCC, an ITP from the USFWS pursuant to Section 10(a)(1)(B) of the FESA, and incidental take authorization from the CDFG pursuant to the CESA and Section 2835 of the California Fish and Game Code (CFG Code). Since its adoption, the Carlsbad HMP has allowed for citywide permits and authorization for the incidental take of sensitive species in conjunction with private development projects, public projects, and other activities that are consistent with the HMP.

Based on existing distribution of vegetation communities and sensitive species, Focus Planning Areas (FPAs) were identified throughout Carlsbad in the Carlsbad HMP. The FPAs were further broken down into HMP cores and linkages. Eight core FPAs have been identified that are connected to one another and to adjoining habitat areas outside Carlsbad by biological linkages and corridors. The FPAs and HMP cores and linkages serve as essential components of a citywide preserve system, which protects the high priority and sensitive biological resources that occur within Carlsbad and is intended to offset the loss of habitat from lower priority areas approved for development. In addition, several Special Resource Areas (SRAs) have been designated for portions of the Carlsbad that support important habitat but are too small, isolated, and exposed to an urban/wildlands interface to be considered HMP core or linkage areas. Nonetheless, the SRAs are important to the overall preserve design, and in some cases, contribute to the conservation of certain sensitive resources.

The following terms and definitions are used in this EIR and correspond to specific resources addressed under the Carlsbad HMP:

- **HMP Permit** – The local permit required to be obtained from when a development project impacts, either directly or indirectly, habitat in Carlsbad.
- **Covered Species** – Species for which take authorization is provided under the Carlsbad HMP because long-term viability has been determined to be adequately maintained under the Carlsbad HMP as identified in Lists 1, 2, and 3, Exhibit "A" to the Implementing Agreement. The HMP addresses the species identified as list 1 in a manner sufficient to meet all of the criteria for issuing an ITP. Take authorization for species of lists 2 and 3 is contingent on other MHCP subarea plans being permitted and/or funding for enhanced management of preserved areas.
- **Development Project** – Any use of a property, including grading, clearing and grubbing, construction, alteration of any magnitude or activities incidental thereto which requires a discretionary or ministerial permit, entitlement or approval issued under Titles 15, 18, 20 or 21 of the Carlsbad Municipal Code.
- **Narrow Endemic Species** – Native species with restricted geographic distributions, soil affinities and/or habitats, and for purposes of the Carlsbad HMP, species that in addition have important populations within the plan area, such that substantial loss of these populations or their habitat within the Carlsbad HMP area might jeopardize the continued existence or recovery of that species and therefore special conservation standards are required.
- **Existing Hardline Conservation Areas** – Also referred to as existing hardline preserve areas, these include properties that have already been conserved for their habitat value due to permitting actions occurring in the past before approval of the Carlsbad HMP.
- **Proposed Hardline Conservation Areas** – Also referred to as proposed hardline preserve areas, properties whose preservation and development areas have been planned as part of the Carlsbad HMP, as agreed-upon in coordination with the landowners, City of Carlsbad, USFWS, and CDFG. If the area proposed for development and proposed for conservation is in conformance with the Carlsbad HMP, the development will be allowed under the Carlsbad HMP.
- **Standards Areas** – Properties whose preservation and development areas have not yet been planned as part of the Carlsbad HMP. Instead, preservation and conservation standards have

been developed for these properties which must be complied with when a development project is submitted for the property.

Conservation of land within Carlsbad is generally implemented as either a 1) existing hardline conservation area, 2) proposed hardline conservation area, or 3) standards area. The existing hardline preserve areas include both publicly owned land and privately owned land that has been committed to habitat conservation as a result of existing open space regulations, past development approvals or other actions. The proposed hardline represents a number of proposed public and private projects which have submitted proposed hardline conservation design for inclusion in the HMP and the preserve system. Since the approval of the HMP, these proposals have obtained, or will obtain, the same conservation status as existing hardline areas. Take of habitat will be authorized for the remaining portions of the projects. Developments and associated hardline preserve designs have not yet been proposed for some properties within Carlsbad which may provide an important contribution to the Carlsbad HMP preserve system. These properties are identified as standards areas in the Carlsbad HMP. The Carlsbad HMP includes conservation goals and standards arranged according to the Local Facility Management Zone (LFMZ), which will apply to future development proposals in the standards areas.

The Carlsbad HMP was in part developed to set aside land in preservation to use as mitigation for future city projects. Appendix B of the Carlsbad HMP contains a tabular list of projects proposed by the City, including the CMWD, which are eligible to mitigate impacts to habitat Groups C, D, E, and F at the Lake Calavera City Mitigation Bank. These include projects required for the City and CMWD to complete the Master Plans.

#### **4.3.2.2 Vegetation Communities**

The vegetation communities assessment contained herein takes a broad-based approach toward identifying vegetation communities or habitat types that occur within the study area. For the purposes of this assessment, vegetation communities have been identified based on mapping from the Carlsbad HMP and aerial imagery. As environmental conditions change and more specific analyses are conducted over time, and with later CEQA reviews of proposed CIP projects, it is likely that deviations from the large-scale assessment contained herein would occur, and more fine-scale mapping would reveal a greater diversity of habitat types.

In addition to urban/developed land, nine general vegetation community categories have been mapped within Carlsbad (Figure 4.3-1). These are described below and include disturbed, agriculture, grassland, coastal sage scrub, chaparral, woodland, riparian, marsh, and other wetland types. The names and definitions of vegetation communities are discussed below based on definitions provided in the Carlsbad HMP, Holland (1986), Oberbauer (1996), and Oberbauer et al. (2008).

As specified below, the majority of the proposed CIP projects have been specifically sited within existing road rights-of-way (ROWs) in urban/developed land. In addition, many of the proposed CIP projects are sited within disturbed land associated with existing dirt access road and utility ROWs.

Mapping of vegetation communities for areas that fall outside of Carlsbad's boundaries was not included in Figure 4.3-1 because nearly all of the CIP projects that fall outside of Carlsbad's boundaries would occur within urban/developed land. The projects that occur entirely within urban/developed land outside of Carlsbad's boundaries and within Oceanside, San Marcos, or Vista include Water CIP Projects 46, 49, 52, and R1; and Recycled Water CIP Projects P78, P79, ES10, ES4A, ES4B, and ES4C. Only one

project outside of Carlsbad, water CIP Project 47, occurs within both urban/developed land and coastal sage scrub habitat in San Marcos.

### **Urban/Developed**

Urban/developed land consists of all residential, commercial, and industrial developments, and land covered by non-native ornamental (landscape) vegetation. The majority of the proposed CIP projects have been specifically sited within existing road ROWs in urban/developed land.

Non-native plant species typical of urban/developed areas include ornamental trees such as pine (*Pinus* spp.), pepper (*Schinus* spp.), palm (*Washingtonia* spp., *Phoenix* spp.), and gum (*Eucalyptus* spp.); shrubs such as acacia (*Acacia* spp.) and oleander (*Nerium oleander*); and, groundcover such as turf grass, red apple (*Aptenia cordifolia*), and hottentot-fig (*Carpobrotus edulis*). Most urban/developed areas provide little habitat for native species, but do support non-native species such as European starlings (*Sturnus vulgaris*), house sparrows (*Passer domesticus*), Virginia opossum (*Didelphis virginiana*), mice, and rats. Native species that have adapted to urban environments include species such as red-shouldered hawk (*Buteo lineatus*), northern mockingbird (*Mimus polyglottos*), house finch (*Carpodacus mexicanus*), black phoebe (*Sayornis nigricans*), and striped skunk (*Mephitis mephitis*), among others. Migrating songbirds use large stands of ornamental plantings during spring or fall, and some species, such as white-crowned sparrow (*Zonotrichia leucophrys*) and cedar waxwing (*Bombycilla cedrorum*), spend the winter in residential neighborhoods.

Within the study area, urban/developed land is comprised of existing roads, buildings, infrastructure, utilities facilities, ornamental landscaping, and a wide variety of general development types (e.g., residential, commercial, airport, parks, etc.).

### **Disturbed**

Disturbed land includes areas in which there is sparse vegetative cover and where there is evidence of soil surface disturbance and compaction from previous human activity and/or the presence of building foundations and debris. Many of the proposed CIP projects have been specifically sited within disturbed land associated with existing dirt access road and utility ROWs.

Disturbed areas are commonly associated with road shoulders, vacant lots, and transitional areas between developed and undeveloped land (i.e., urban/widlands interface areas). Vegetation on disturbed land (if present) may have a high predominance of non-native and ruderal (weedy) annual species that are indicators of disturbance such as Russian thistle (*Salsola tragus*), telegraph weed (*Heterotheca grandiflora*), horehound (*Marrubium vulgare*), and sow-thistle (*Sonchus oleraceus*), among others. In most cases, disturbed land provides limited biological function and value, and poor quality habitat for most wildlife species.

Within the study area, disturbed land occurs primarily as vacant lots and disturbed bare earth within road and utility ROWs.

### **Agriculture**

Agriculture refers to lands subject to routine and ongoing commercial operations associated with orchards and vineyards, intensively developed agriculture, such as dairies, nurseries, and chicken ranches, and extensive agriculture such as field pastures and row crops. Portions of some of the CIP project pipelines could occur on or in the immediate vicinity of agricultural lands within the study area.

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Well-managed, modern agricultural areas used for commercial row crops, orchards, and vineyards can be devoid of wildlife. However, fields and pastures can provide habitat for native small mammals and foraging habitat for raptors such as northern harrier (*Circus cyaneus*) and red-tailed hawk (*Buteo jamaicensis*). White-faced ibis (*Plegadis chihi*), American crow (*Corvus brachyrhynchos*), and killdeer (*Charadrius vociferus*) often use fallow or active fields.

Agricultural areas within the study area generally include row crops and nurseries. These areas are sparsely situated south and northeast of Agua Hedionda Lagoon.

##### **Grassland**

Grassland can be divided into two general categories within the study area: native grassland or non-native grassland. Portions of some of the CIP projects could occur on or in the immediate vicinity of areas characterized by grassland.

The native grassland type known to occur within the study area is valley needlegrass grassland. Valley needlegrass grassland typically occurs on clay soils and is comprised of a vegetative cover of at least 10 percent by needlegrass (*Nassella* spp.), with the remaining 90 percent comprised of other native and non-native annual grasses and forbs. Native grasslands are considered a sensitive habitat type and are often associated with open patches within coastal sage scrub. Non-native grassland, or annual grassland, is described as a dense to sparse cover of non-native annual grasses often associated with ruderal (weedy) species. Seed germination occurs with the onset of winter rains. Some plant growth occurs in winter, but most growth and flowering occurs in the spring. Plants then die in the summer, and persist as seeds in the uppermost layers of soil until the next rainy season.

Native grasses typically found within valley needlegrass grasslands include purple needles foothill needlegrass (*Nassella lepida*), California brome (*Bromus carinatus* var. *carinatus*), and California blue-eyed grass (*Sisyrinchium bellum*), among others. Other native species typical of native grasslands include species such as fiddleneck (*Amsinckia* spp.), California poppy (*Eschscholzia californica*), popcorn flower (*Plagiobothrys* spp.), phacelia (*Phacelia* spp.), checker-bloom (*Sidalcea malvaeflora* spp. *sparsifolia*), wild hyacinth (*Dichelostemma pulchra*), and golden stars (*Bloomeria crocea* and *Muilla clevelandii*). Non-native species typically found in grassland habitats include grasses such as red brome (*Bromus madritensis* ssp. *rubens*), ripgut (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), oats (*Avena* spp.), and barleys (*Hordeum* spp.), and forbs such as black mustard (*Brassica nigra*), shortpod mustard (*Hirschfeldia incana*), tocalote (*Centaurea melitensis*), filaree (*Erodium* spp.), and sweet fennel (*Foeniculum vulgare*).

Both native and non-native grasslands are important for a variety of wildlife known to the area including grasshopper sparrow (*Ammodramus savannarum*), horned lark (*Eremophila alpestris*), western meadowlark (*Sturnella neglecta*), and numerous small mammals. They provide refugia for reptiles and important foraging habitat for raptors. Native and non-native grasslands are often associated with rare plants, such as thread-leaved brodiaea (*Brodiaea filifolia*), and other sensitive microhabitats, such as vernal pools. Non-native grassland is not considered a sensitive habitat; however, in a few locations it may be a significant resource for raptor foraging, may support sensitive plant species, and may serve as a habitat linkage.

Native and non-native grasslands occur in scattered patches throughout the lower elevation valleys that characterize the study area.

### Coastal Sage Scrub

Coastal sage scrub types within the study area include Diegan coastal sage scrub, maritime succulent scrub, and coastal sage scrub-chaparral scrub. Several of the proposed CIP projects could occur on or in the immediate vicinity of coastal sage scrub.

Coastal sage scrub is a native scrub-type community that consists of low-growing, drought-deciduous, perennial and evergreen shrubs adapted to xeric sites supported by steep and gentle sloping topography with severely drained soils or clays that release stored soil moisture slowly. Typical stands are dominated by the native shrub, California sagebrush (*Artemisia californica*), with a sub-dominance of one or more native shrubs and an herbaceous understory. Diagnostic species generally include California sagebrush, California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), white sage (*Salvia apiana*), laurel sumac (*Malosma laurina*), brittlebush (*Encelia californica*), sticky monkeyflower (*Mimulus auranticus*), chaparral yucca (*Yucca whipplei*), and California aster (*Corethrogyne filaginifolia*), among others. The vegetation is fire-adapted, with many constituent species being able to sprout new stems from remnant crowns after a burn. This community provides habitat for several sensitive species, including the coastal California gnatcatcher (*Polioptila californica californica*).

Maritime succulent scrub includes a variety of succulents, such as fish-hook cactus (*Mammillaria dioica*), coast cholla (*Opuntia prolifera*), shore cactus (*Opuntia littoralis*), California desert thorn (*Lycium californicum*), cliff-spurge (*Euphorbia misera*), bladder-pod (*Isomeris arborea*), and several species of dudleya (*Dudleya* spp.), mixed with typical Diegan sage scrub species.

Coastal sage-chaparral scrub contains species representative of both sage scrub and chaparral, dominated by California sagebrush, California buckwheat, laurel sumac and sage species (*Salvia* spp.). Canopy height tends to be low to moderate (3-5 feet tall), and relatively open, resembling sage scrub.

Coastal sage scrub generally occurs on the lower elevation, south- and west-facing slopes within the study area. The largest remaining tracts of Diegan coastal sage scrub are found in the vicinity of Lake Calavera, southeast of Agua Hedionda Lagoon, and near Rancho Santa Fe Road. This habitat is associated with a number of special status species known in the region, with the higher quality stands providing important habitat for the coastal California gnatcatcher. Maritime succulent scrub generally occurs on very low elevation slopes closer to the coast. Coastal sage-chaparral scrub generally occurs along transition areas between lower slopes occupied by Diegan coastal sage scrub, and higher elevation and north-facing slopes occupied by chaparral type habitats.

### Chaparral

Chaparral habitat in the study area has been grouped into several sub-types, including southern mixed, chamise chaparral, and southern maritime chaparral. Several of the proposed CIP projects could occur on or in the immediate vicinity of chaparral habitat types.

Southern mixed chaparral is composed of broad-leaved shrubs which are typically deep rooted. Shrubs are generally tall (between 10 and 20 feet) and occur on dry, rocky, often steep slopes with little soil. In drier situations the understory may be dominated by a limited number of species; in shaded and more mesic conditions the understory can be varied with species of ferns, subshrubs, herbaceous perennials, bulbs, and annuals. Southern mixed chaparral is a fire- and drought-adapted community composed of a variety of woody shrubs, many of which are "stump sprouters" that regenerate rapidly from underground undamaged tissues following fires or other ecological perturbation. Characteristic species

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of this community include black sage, Cleveland sage (*Salvia clevelandii*), Eastwood manzanita (*Arctostaphylos glandulosa*), woollyleaf ceanothus (*Ceanothus tomentosus*), mountain mahogany (*Cercocarpus minutiflorus*), chamise (*Adenostoma fasciculatum*), spiny redberry (*Rhamnus crocea*), hollyleaf redberry (*Rhamnus ilicifolia*), sugar bush (*Rhus ovata*), and fuchsia flower gooseberry (*Ribes speciosum*). This community provides habitat for a number of non-listed sensitive species known to the region.

Chamise chaparral is a low-growing community strongly dominated by chamise with limited shrub diversity and arid understory conditions. In addition to chamise, other species associated with this community may include black sage, hairy yerba santa (*Eriodictyon trichocalyx*), broom snakeweed (*Gutierrezia sarothrae*), hollyleaf buckthorn (*Rhamnus pilosa*), Mojave yucca (*Yucca schidigera*), and mission manzanita (*Xylococcus bicolor*). Chamise chaparral provides habitat for a number of non-listed species. Several rare plants are associated with mafic chamise chaparral.

Southern maritime chaparral is similar to southern mixed chaparral, but occurs on sandstone at coastal locales. Dominant species include laurel sumac, lemonade berry (*Rhus integrifolia*), black sage, Mission manzanita, toyon (*Heteromeles arbutifolia*), and scrub oak (*Quercus berberidifolia*). Southern maritime is the most limited type of chaparral within the service area, and is characterized by several rare sensitive endemic shrubs, including Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*), wart-stemmed ceanothus (*Ceanothus verrucosus*), and Nuttall's scrub oak (*Quercus dumosa*).

Chaparral types have a patchy distribution throughout the study area, occurring on more mesic north- and west-facing slopes, alternating with coastal sage scrub, grasslands, and oak woodlands. Several CIP projects occur on or in the immediate vicinity of chaparral. The major stands of southern maritime chaparral are located northeast of the junction of Palomar Airport Road and El Camino Real; east and west of El Camino Real between Palomar Airport Road and Alga Road; slopes above Green Valley; and, east and west of El Camino Real between La Costa Avenue and Olivenhain Road.

#### **Woodland**

In general, two woodland types occur in the study area: oak woodland and eucalyptus woodland. A few CIP projects could occur on or in the immediate vicinity of oak and eucalyptus woodlands.

The principal oak woodland type within the study area is coast live oak woodland. Coast live oak woodland is dominated by coast live oak (*Quercus agrifolia*) with an open understory of perennial grasslands, annuals, and herbaceous species. Species associated with this woodland may include creeping snowberry (*Symphoricarpos mollis*), San Diego sedge (*Carex spissa*), California buckthorn (*Rhamnus californica*), California wild rose (*Rosa californica*), nodding needlegrass (*Nassella cernua*), and common chickweed (*Stellaria media*). Coastal live oak woodland is typically associated with shallow dry valleys, gullies, and higher order ephemeral tributaries at inland locations.

Eucalyptus woodland is a non-native community. It is dominated by various species of planted eucalyptus that survived around old dwellings or in entire groves (e.g., Hosp Grove Park). For the purposes of this assessment, undifferentiated non-native woodlands are mapped along with the eucalyptus woodlands. Although this habitat supports no sensitive plant or wildlife species, it is often used for nesting by raptors and other birds or roosting by bats.

Limited, narrow stands of oak woodland remain within the study area, primarily as ecotones adjacent to riparian forest habitat. The largest stands of eucalyptus woodland occur south of Buena Vista Lagoon, near Marron Road, and areas along the northern rim of Batiquitos Lagoon below Aviara.

## Riparian

Riparian types within the study area include riparian scrub, riparian woodland, and riparian forest. Several CIP projects could occur on or in the immediate vicinity of riparian habitat.

Southern riparian scrub is located in riparian zones and consists of dense, broadleaved, winter-deciduous stands of trees and shrubs dominated by arroyo willow (*Salix lasiolepis*). This community lacks taller riparian trees and commonly encroaches into some coastal saltmarsh habitats. It is primarily situated on loose, sandy, or fine gravelly alluvium in major river systems where flood scour occurs. This community has expanded as a result of increased urban and agricultural run-off. In addition to arroyo willow, characteristic species include mule fat and desert broom (*Baccharis sarothroides*).

Riparian woodland includes sycamore-alder riparian woodland and other riparian woodland. Sycamore-alder woodland is an open to moderately closed, winter deciduous, broadleafed riparian woodland, dominated by well-spaced western sycamore (*Plantanus racemosa*).

Southern riparian forest is characterized by tall, open, broadleafed winter-deciduous riparian forests dominated by cottonwood trees (*Populus* spp.) and several tree willows (*Salix* spp.). Understories are usually shrubby willows. This community is located on sub-irrigated and frequently overflowed lands along perennially wet stream reaches. The dominant species require moist, bare mineral soil for germination and establishment, which is provided after flood waters recede, leading to uniform-aged stands in this seral type. Characteristic species of this community include Douglas' sagewort (*Artemisia douglasiana*), mule fat, Cucamonga manroot (*Marah macrocarpus*), western sycamore, Fremont cottonwood (*Populus fremontii*), black willow (*Salix gooddingii*), arroyo willow, and stinging nettle (*Urtica holosericea*).

Within the study area, riparian communities occur along stream courses and seasonally moist drainages, including areas south of Batiquitos Lagoon; Agua Hedionda Creek; Macario Canyon at the eastern end of Agua Hedionda Lagoon; Buena Vista Creek; Encinas Creek; and along a narrow unnamed drainage south of Lake Calavera, among many others. Riparian habitats are considered sensitive under federal and state wetlands regulations and policies.

## Marsh and Other Wetland Types

Marsh, estuarine, freshwater, and other wetland habitat types in the study area include southern coastal salt marsh, coastal freshwater marsh, estuarine, open water, disturbed wetland, vernal pools and cismontane alkali marsh. Several CIP projects could occur on or in the immediate vicinity of major known wetlands.

Southern coastal salt marsh is a wetland community that develops in low, flat estuaries at the mouths of rivers and streams. Tidal inundation or excessive evaporation results in highly saline conditions around the margins of lagoons, and it is under these conditions that salt marshes develop. Within the study area, salt marsh habitat is present surrounding portions of Batiquitos Lagoon and Agua Hedionda Lagoon. Limited southern coastal salt marsh habitat occurs around the periphery of Buena Vista Lagoon as well.

Coastal freshwater marsh occurs along the edges of ponds, creeks and riverbeds. This vegetation community is characterized by perennial, emergent monocots at sites with saturated or inundated soils and standing water. Species associated with coastal freshwater marsh are broadleaf cattail (*Typha latifolia*), southern cattail (*Typha domingensis*), California bulrush (*Scirpus californicus*), common

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threesquare (*Scirpus americanus*), tall flatsedge (*Cyperus eragrostis*), and spikerush (*Eleocharis montevidensis*). Patches of this habitat are present at the upper ends of Buena Vista, Agua Hedionda, and Batiquitos Lagoons. Smaller freshwater marshes grow around the perimeter of Lake Calavera and within riparian scrub communities. All marsh habitats are considered sensitive and are regulated under federal and state regulations and policies.

Estuarine habitat consists of a semi-enclosed body of water that is tidal influenced and connected with the open ocean and freshwater tributaries. Seawater influx is diluted by freshwater sources discharging from the watershed upstream. Vegetation present within estuarine habitats includes submerged or partially floating plants such as eel grass (*Zostera* sp.).

Areas classified as open water in the service area include existing reservoirs, lakes, and ponds. Excluding the three major coastal lagoons (Batiquitos, Agua Hedionda, and Buena Vista Lagoons), the largest open water area in the study area is Lake Calavera. There also are a number of smaller natural or artificial ponds throughout the study area.

Disturbed wetland is not a native plant community. It typically occurs where the natural wetland vegetation has been degraded by mechanical activities or invaded by weedy, non-native species.

Vernal pools are a highly restricted, unique, wetland habitat type that supports a high number of sensitive species. San Diego Mesa claypan vernal pools occur as individual basins or a network of pools sealed by a thick veneer of clay, typically associated with marine terraces that have finer textured soils than hardpan pools. Characteristic species found near these vernal pools include toothed calicoflower (*Downingia cuspidate*), shortseed waterwort (*Elatine brachysperma*), and Orcutt's quillwort (*Isoetes orcuttii*). This type occurs in several scattered locations on coastal marine terraces in the study area.

Areas classified as cismontane or alkali marsh are typically disturbed riparian freshwater marsh that have changed in vegetative character due to agriculture or other disturbance. Plant species found in these locations are often those associated with salt marsh, as well as exotic or weedy species. Areas of cismontane alkali marsh along portions of Encinitas Creek and in the vicinity of natural springs and seeps.

##### 4.3.2.3 Sensitive Biological Resources

The following section addresses sensitive biological resources which may occur within the study area. For the purposes of this EIR, "special status" species include plant and animal species that have been recognized by either federal or state resource agencies, conservation organizations such as the CNPS, and regional planning documents (e.g., Carlsbad HMP) as having special management needs due to limited distribution, limited numbers, or significant population declines associated with natural or man-made causes. Special status species include those designated as endangered, threatened, rare, protected, sensitive, or species of special concern according to the USFWS, CDFG, or applicable regional plans, policies, or regulations. Special status species also include covered species and narrow endemic species, as identified under the Carlsbad HMP.

In general, the principal reason an individual taxon (species, subspecies, or variety) is given special status recognition is the documented or perceived decline or limitation of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss. Sensitive biological resources also include natural vegetation communities that are either unique, of relatively limited distribution in the

region, or of particularly high biological function and value. These resources have been defined by federal, state, and local government conservation programs.

Sensitive biological resources are defined as the following: 1) vegetation communities that are unique, of relatively limited distribution, or of high function and value; and 2) species that have been given special recognition by federal or state agencies, conservation organizations, or are included in the Carlsbad HMP due to limited, declining, or threatened populations.

### **Sensitivity Designations**

Federal listing of endangered and threatened wildlife and plants is administered by the USFWS. The USFWS also recognizes species of special concern that are candidates for listing. Before a plant or animal species can receive protection under the FESA, it must first be placed on the federal list. The program follows a strict legal process to determine whether to list a species. An “endangered” species is defined as one that is in danger of extinction throughout all or a significant portion of its range. A “threatened” species is one that is likely to become endangered in the foreseeable future. The USFWS also maintains a list of plants and animals native to the U.S. that are species of special concern for possible addition to the federal list but that are not currently regulated.

The CDFG implements the CESA, which is a program that is similar in structure to, but different in detail from, the USFWS program implementing the FESA. The CDFG maintains a list of designated endangered, threatened, and rare plant and animal species. Listed species are either designated under the Native Plant Protection Act or designated by the Fish and Game Commission. In addition to recognizing three levels of endangerment, the CDFG affords interim protection to candidate species while they are being reviewed by the Fish and Game Commission. The CDFG also maintains a list of “Species of Special Concern (SSC),” most of which are species whose breeding populations in California are threatened by local extinction and additional data is required to fully determine their endangerment. Although these species have no legal status under CESA, the CDFG recommends their consideration in order to protect declining populations and avoid the need to list them as threatened or endangered in the future.

Under the provisions of Section 15380(d) of the CEQA Guidelines, the lead agency, in making a determination of significance, must treat rare non-listed plant and animal species as equivalent to listed species if such species satisfy the minimum biological criteria for listing. In general, the CDFG considers species on Lists 1A, 1B, or 2 of the CNPS’ *Inventory of Rare and Endangered Vascular Plants of California* (Skinner and Pavlik 1994) as qualifying for consideration under this CEQA provision. Species on the CNPS List 3 or 4 may, but generally do not, qualify for protection under this provision. Species on CNPS List 1A are “presumed extinct in California.” Species on List 1B are “rare or endangered in California and elsewhere.” Species on List 2 are “rare or endangered in California and are more common elsewhere.” Species on Lists 3 and 4 are those which require more information to determine status and plants of limited distribution, respectively.

The primary information source on the distribution of special-status species in California is the CNDDDB inventory, which is maintained by the Wildlife and Habitat Data Analysis Branch of the CDFG. The CNDDDB inventory provides the most comprehensive state-wide information on the location and distribution of special-status species and sensitive natural communities. Occurrence data are obtained from a variety of scientific, academic, and professional organizations; private consulting firms; and knowledgeable individuals; and is entered into the inventory as expeditiously as possible. The occurrence of a species of concern in a particular region is an indication that an additional population may occur at another location if habitat conditions are suitable. However, the absence of an occurrence

in a particular location does not necessarily mean that special-status species are absent from the area in question, only that no data has been entered into the CNDDDB inventory.

#### **Sensitive Natural Communities**

Appendix C provides a summary table of the 17 sensitive natural communities with the potential to occur within the study area, along with their corresponding global and state sensitivity rank, as designated by the CDFG and reported by the CNDDDB, as well as their assigned Group rankings under the Carlsbad HMP.

The majority of the CIP projects occur within disturbed and developed land. Although several sensitive natural communities have been identified as potentially occurring within the study area, they may not necessarily occur within the specific locations of proposed CIP projects. For example, the majority of the CIP project pipelines that traverse areas potentially supporting sensitive natural communities are proposed within existing, disturbed easements and access roads. Thus, although on large-scale mapping CIP projects may appear to occur within sensitive natural communities, the project footprints would be restricted to disturbed areas associated with the existing easements and access roads. It is also possible that other sensitive natural community types occur that have not been identified under this programmatic evaluation. Additionally, some of the sensitive natural communities, such as non-native grassland and certain chaparral-type habitats, may not necessarily be considered sensitive on a global or state level, but may harbor sensitive species and/or be considered locally rare.

#### **Special Status Species**

##### ***Special Status Plant Species***

Appendix C lists the 54 special status plant species with the potential to occur within the study area. Species nomenclature generally conforms to CNPS (2012), Jepson (2011) and Munz (1974). Habitat requirements were primarily derived from the Carlsbad HMP (City of Carlsbad 2004), CNDDDB (CDFG 2012a), CNPS (2012), and *Rare Plants of San Diego County* (Reiser 1994). Nearly all of the special status plant species with the potential to occur within the study area have been analyzed for coverage under the Carlsbad HMP.

Below is a brief description of the most commonly occurring special status plant species in the study area, as derived from the 2003 Master Plans Program EIR (City of Carlsbad 2003) and Carlsbad HMP (City of Carlsbad 2004).

**San Diego Thorn-mint (*Acanthomintha ilicifolia*).** San Diego thorn-mint is a federally threatened and state endangered species that is restricted to San Diego County and northern Baja California, Mexico (CNPS 2012; USFWS 2008). In San Diego County, the species is known from Carlsbad and San Marcos south to Sweetwater and Otay Mesa, and east to Alpine (USFWS 2008). This species is an annual plant that may experience dramatic yearly fluctuations in population size and detectability. The species requires a clay soil substrate, and appears to require particularly a micro-habitat within that general category. It is susceptible to local extirpation by catastrophic fire and surface disturbance (City of Carlsbad 2004).

**Del Mar Manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*).** This federally endangered species occurs on sandstone terraces and bluffs and is associated with southern maritime chaparral. This burl-forming, fire-adapted shrub occurs on sandstone terraces and bluffs in southern maritime chaparral. Individuals are typically long-lived. Del Mar manzanita is restricted to San Diego County and northwestern Baja California, Mexico (CNPS 2012; USFWS 2010). Two major populations of this species

have been identified in Carlsbad, in the vicinity of Agua Hedionda Lagoon and Green Valley/Olivenhain (City of Carlsbad 2004).

**Thread-leaved Brodiaea (*Brodiaea filifolia*).** This federally threatened, state endangered species generally occurs in heavy clay soils in grasslands or vernal pools. Thread-leaved Brodiaea is known from Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties (CNPS 2012). This species generally occurs in heavy clay soils in grasslands or vernal pools. It is an herbaceous perennial from a corm, and often reproduces asexually by producing corm offsets. A total of ten populations are believed to occur in Carlsbad (CNPS 2012).

**Wart-stemmed Ceanothus (*Ceanothus verrucosus*).** This non-listed species is associated with southern maritime chaparral and southern mixed chaparral. It also forms nearly monotypic stands in some inland locations. Wart-stemmed ceanothus is limited to western San Diego County and Baja California, Mexico (CNPS 2012). This evergreen shrub is a highly fire-adapted species whose fire response mechanism is seed germination from a persistent seedbank after exposure to intense heat (CNPS 2012).

**Del Mar Mesa Sand Aster (*Corethrogyne filaginifolia* var. *linifolia*).** Del Mar Mesa sand aster is non-listed San Diego County endemic species that occurs along bluffs or brushy slopes near the coast from Carlsbad southward to Point Loma. This perennial sub-shrub occurs on sandstone terraces and bluffs in southern maritime chaparral and coastal sage scrub. Individuals are typically short-lived. The species is an obligate seeder rather than a vigorous stump-sprouter, and may invade disturbed soils readily.

**San Diego Goldenstar (*Muilla clevelandii*).** This non-listed species generally occurs in heavy clay soils in grasslands. San Diego Goldenstar is endemic to San Diego County (CNPS 2012) where it has been reported from Carlsbad, San Diego, Rancho Bernardo, Poway, and Otay. This species generally occurs in heavy clay soils in grasslands (CNPS 2012).

**Nuttall's Scrub Oak (*Quercus dumosa*).** Nuttall's scrub oak is non-listed species that has a patchy distribution which includes Santa Barbara, Orange, and San Diego Counties (CNPS 2012). This fire-adapted shrub occurs on sandstone terraces and bluffs in southern maritime chaparral, southern mixed chaparral and coastal sage scrub. Individuals are typically long-lived.

### Special Status Wildlife Species

Appendix C lists the 63 special status wildlife species with the potential to occur within the study area. Species nomenclature generally follows that respected by CDFG (CDFG 2012). Habitat requirements were primarily derived from the Carlsbad HMP (City of Carlsbad 2004) and CNDDB (CDFG 2012a). As with special status plants, nearly all of the special status wildlife species with the potential to occur within the study area have been analyzed for coverage under the Carlsbad HMP.

Below is a brief description of the most commonly occurring special status wildlife species in the study area, as derived from the 2003 Master Plans PEIR (City of Carlsbad 2003) and Carlsbad HMP (City of Carlsbad 2004).

**San Diego Fairy Shrimp (*Branchinecta sandiegoensis*).** San Diego fairy shrimp are federally endangered and are usually found early in the season after winter and spring rains in vernal pools on mesas, in roadside ditches, and in shallow tire ruts. Hatched eggs incubate at temperatures ranging from 10 to 15 °C. This species occurs in vernal pools from coastal Orange County to northern Baja California, Mexico, from near the coast (Orange County, Camp Pendleton) inland to Ramona (USFWS 2007b).

**Orange-throated Whiptail (*Cnemidophorus hyperythrus beldingi*).** Orange-throated whiptail is a California species of special concern. The species is most often associated with open sage scrub habitats with a vegetative cover of about 50 percent, but is also found in ruderal areas, open chaparral, riparian scrub, and oak woodlands. Orange-throated whiptail is locally common within its range in the extreme southwest corner of California, which includes parts of Orange, Riverside, and San Diego Counties, and northern Baja California at elevations below 2,800 feet.

**Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*).** Belding's savannah sparrow is a state endangered species and is restricted to salt marsh, mud flat, and low coastal strand vegetated habitats. This salt marsh sparrow is distributed along the coastline from Santa Barbara County south to northern Baja California. Salt marsh habitats within Agua Hedionda and Batiquitos lagoons contain major populations of this species.

**California Least Tern (*Sterna antillarum browni*).** The federal and state endangered California least tern requires coastal beaches and saltflats for colonial breeding and intertidal and estuarine waters for foraging. The colonially breeding species is distributed along the coast from San Francisco Bay to Baja California. Estuarine and salt marsh habitats within Buena Vista, Agua Hedionda, and Batiquitos lagoons support major populations for the California least tern.

**Coastal California Gnatcatcher (*Poliophtila californica californica*).** This federally threatened species is closely associated with coastal sage scrub habitat, especially below 950-foot elevation and on slopes less than 40 percent. Within the study area, the number of existing coastal California gnatcatcher pairs fluctuates seasonally and from year to year, based on weather, fires and a number of other factors.

**Light-footed Clapper Rail (*Rallus longirostris levipes*).** This federally and state endangered species is restricted to coastal salt marshes of southern California. Salt marsh habitat associated with Buena Vista, Agua Hedionda, and Batiquitos lagoons have been identified as critical locations for the this species.

**Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*).** The rufous-crowned sparrow is a state species of special concern and occurs primarily in coastal sage scrub and has declined as a result of habitat loss. Rufous-crowned sparrows occur particularly on steep, rocky slopes with sparse brush intermixed with grassland.

**Least Bell's Vireo(*Vireo bellii pusillus*).** This federally and state endangered migratory songbird breeds in high quality riparian woodlands. It is restricted to riparian woodlands in southern California, with the majority of breeding pairs in San Diego, Santa Barbara, and Riverside Counties. No major populations or critical locations have been identified for this species in the planning area; however, this species has been known to establish breeding territories in Agua Hedionda Creek.

**Yellow-breasted Chat (*Icteria virens*).** This state species of special concern occurs in riparian woodlands and is considered an indicator species for potential least Bell's vireo habitat and is an uncommon summer resident of riparian woodland/scrub of coastal plain and foothills of California. It is known from several locations along major riparian corridors in the study area (City of Carlsbad 2004).

#### **Critical Habitat**

The USFWS has designated Critical Habitat for several federally listed species within portions of the study area, including coastal California gnatcatcher, Riverside fairy shrimp, San Diego fairy shrimp, San Diego thornmint, southwestern willow flycatcher, spreading navarretia, thread-leaved brodiaea, and western snowy plover (USFWS 2012). Although some of the CIP projects would occur in the vicinity of

USFWS Critical Habitat, they would be entirely contained within existing disturbed and developed areas, such as the footprints of existing facilities, road and utility ROWs, and dirt access roads. In addition, many of the CIP projects that occur in the vicinity of USFWS Critical Habitat have already been evaluated and adequately addressed in previous CEQA documents.

### **Carlsbad HMP Conservation Areas**

Several of the proposed CIP projects occur in the vicinity of areas designated as HMP core areas, Linkage areas, SRAs, existing hardline conservation areas, proposed hardline conservation areas, and/or proposed standards areas within the adopted Carlsbad HMP (City of Carlsbad 1997, 2004, 2011). As such, development of these projects could require further review at the project level to demonstrate compliance with the Carlsbad HMP and implementing ordinances within the Carlsbad Municipal Code.

Project-level evaluations would verify the extent to which development of these CIP projects would occur within each conservation area of the Carlsbad HMP. Although on large-scale mapping these CIP projects may appear to occur within habitat associated with conservation areas, the CIP projects will be sited entirely within the footprints of existing facilities or disturbed and developed road and utility ROWs, and therefore, would not result in impacts to important biological resources associated with Carlsbad HMP conservation areas.

In the event that project level studies determine a CIP project could affect an HMP conservation area, the City and/or CMWD is required to coordinate the review of CIP projects in accordance with the compliance process defined within the Carlsbad HMP and Carlsbad Municipal Code, which would ensure that the appropriate studies are conducted to identify potential impacts and avoidance, minimization, and mitigation requirements. If determined necessary for CIP projects occurring within a Proposed Standards Area, for example, the City and/or CMWD may be required to coordinate review with the USFWS, CDFG, and/or the CCC if the project could result in substantial adverse effects to certain sensitive biological resources. However, as stated, CIP projects that occur in the vicinity of habitat associated with HMP conservation areas would be entirely contained within existing disturbed and developed areas, such as the footprints of existing facilities, road and utility ROWs, and dirt access roads. In addition, many of the CIP projects have already been evaluated and adequately addressed in previous CEQA documents.

### **CDFG Ecological Reserves**

Several of the proposed CIP projects occur in the vicinity of areas designated as Ecological Reserves managed by the CDFG, including the Agua Hedionda Lagoon, Batiquitos Lagoon, Buena Vista Creek, Buena Vista Lagoon, and Carlsbad Highlands Ecological Reserves. The majority of CIP projects that occur in the vicinity of CDFG Ecological Reserves would be entirely contained within existing disturbed and developed areas, such as the footprints of existing facilities, road and utility ROWs, and dirt access roads. In addition, many of the CIP projects have already been evaluated and adequately addressed in previous CEQA documents. Where necessary for certain CIP projects, project-level evaluations would verify whether the projects would require encroachment onto a CDFG Ecological Reserve for project construction and operation activities. To the extent feasible and as authorized by CDFG, the CIP projects would be sited within the footprints of existing facilities or disturbed and developed road and utility ROWs, and therefore, are not expected to result in significant impacts to important biological resources contained within the CDFG Ecological Reserves. As required, the City and/or CMWD would be required to coordinate the review of the CIP projects with the CDFG to obtain approvals for construction and operation activities, which would ensure that the appropriate studies are conducted and avoidance, minimization, and mitigation measures are implemented to the satisfaction of CDFG.

##### **Other Conservation Areas and Preserves**

###### ***Encinas Creek Open Space Preserve***

A single CIP project, proposed Sewer CIP Project SR-3, could occur within portions of the Encinas Creek Open Space Preserve (SDHC 2010). The Encinas Creek Open Space Preserve, also referred to as the Encinas Creek Biological Open Space, is an 8.0-acre preserve located immediately north of Laurel Tree Lane, south of Palomar Airport Road, and east of Aviara Parkway along Encinas Creek in Carlsbad. The Preserve connects with both wetland and upland habitat located upstream and downstream within Encinas Creek, and is identified for conservation as part of the Carlsbad HMP. Resources within the Preserve include Diegan coastal sage scrub, southern mixed chaparral, and several types of wetlands including southern cottonwood-willow riparian forest, floodplain riparian scrub, southern willow scrub and freshwater marsh. The state and federally listed endangered least Bell's vireo has been detected downstream and is anticipated to occur within the Preserve. The San Diego Habitat Conservancy (SDHC) provides long-term stewardship of the Preserve.

Project-level evaluations would verify whether Sewer CIP Project SR-3 would require encroachment onto the Encinas Creek Open Space Preserve for project construction and operation activities. To the extent feasible, Sewer CIP Project SR-3 would be sited within the footprints of existing facilities or disturbed and developed road and utility ROWs, and therefore, is not expected to result in significant impacts to important biological resources contained within the Encinas Creek Open Space Preserve.

###### ***Encinas Creek Habitat Conservation Area***

Two CIP projects, proposed Sewer CIP Projects SR-3 and SR-22 could occur within portions of the Encinas Creek Habitat Conservation Area (CNLM 2010). The Encinas Creek Habitat Conservation Area, also referred to as the North County Habitat Bank, is a 19.0-acre preserve located approximately 0.5-mile east of Interstate 5, immediately south of Palomar Airport Road, east of Costco, and west of Hidden Valley Road along Encinas Creek in Carlsbad. The area primarily supports southern willow scrub, but also has small patches of coastal sage scrub along its northern, western and southern perimeters. The state and federally listed endangered least Bell's vireo and federally listed threatened coastal California gnatcatcher occur within the area. The Encinas Creek Habitat Conservation Area is currently being managed by the Center for Natural Lands Management (CNLM) and used by Westmark Development Corporation (Westmark) as a wetlands mitigation bank.

Project-level evaluations would verify whether Sewer CIP Projects SR-3 and SR-22 would require encroachment onto the Encinas Creek Habitat Conservation Area for project construction and operation activities. To the extent feasible, Sewer CIP Projects SR-3 and SR-22 would be sited within the footprints of existing facilities or disturbed and developed road and utility ROWs, and therefore, are not expected to result in significant impacts to important biological resources contained within the Encinas Creek Open Space Preserve.

##### **Coastal Zone Resources**

The western portions of the study area occur within the coastal zone, as defined by the CAA and Carlsbad's LCP and General Plan (CCC 2011; City of Carlsbad 1996). Certain areas within the coastal zone (e.g., Agua Hedionda Lagoon, Buena Vista Creek, Encinas Creek, etc.) support coastal stream, riparian, and wetland habitat that could qualify as Environmentally Sensitive Habitat Area (ESHA), as defined within the Carlsbad LCP and General Plan, and Section D.7 of the Carlsbad HMP. Areas within the coastal zone that clearly lack potential ESHA resources (e.g., disturbed and developed areas) are referred to herein as non-ESHA.

Several of the proposed CIP projects fall within the boundaries of the coastal zone. The City of Carlsbad and CCC require that development projects, including pipelines, which are proposed within the coastal zone, comply with the coastal zone management requirements and development standards incorporated into the Carlsbad LCP and General Plan, as enforced through the Carlsbad Municipal Code. The Carlsbad Coastal Resource Protection Overlay Zone (CRPOZ) ordinance requires development projects that meet the minimum criteria to obtain a Coastal Development Permit (CDP). Further, Section D.7 of the Carlsbad HMP requires that additional conservation standards be applied to properties in the coastal zone that support ESHA and other sensitive biological resources, such as coastal sage scrub and oak woodland habitat, streams, and wetlands.

Project-level evaluations would verify whether CIP projects located within the coastal zone would require encroachment onto ESHA and other sensitive biological resource areas. In accordance with CDP requirements and to the extent feasible, these CIP projects would be sited within the footprints of existing facilities or disturbed and developed road and utility ROWs. Where a CIP pipeline must cross an ESHA and other sensitive biological resources (e.g., coastal stream, riparian, and wetland habitat), the City and CMWD would implement trenchless methodologies (e.g., jack and bore, horizontal directional drill) during pipeline installation and construction, thereby avoiding any direct impacts to the resources. Therefore, these CIP projects would not be expected to result in significant impacts to ESHA and other sensitive biological resource areas.

#### **Wildlife Movement Corridors and Linkages**

Several habitat linkages identified within the Carlsbad HMP occur within the study area (City of Carlsbad 1997, 2004, 2011). The local habitat linkages within the study area provide a connection between HMP cores and regional connectivity to what are referred to as Biological Core and Linkage Areas (BCLAs) for the North County MHCP. Potential impacts to resources contained within these linkages would be addressed as part of the compliance process with the Carlsbad HMP. Many of the proposed CIP projects would involve construction and operation activities associated with access roads and below-ground pipelines. As such, these projects would not result in developments that would adversely affect wildlife movement. Isolated CIP projects, such as pump stations and reservoirs, would be confined to small footprints that already support existing facilities and/or would only require limited above-ground developments. Further, these CIP projects would not be expected to adversely affect the wildlife movement functions and values of existing habitat. Therefore, implementation of the proposed Master Plans would not be expected to interfere substantially with wildlife movement or established wildlife corridors.

#### **Jurisdictional Waters and Wetlands**

Several of the proposed CIP projects occur in the vicinity of known waters and wetlands potentially subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE), RWQCB, and/or CDFG, including resources associated with Agua Hedionda Creek, Agua Hedionda Lagoon, Batiquitos Lagoon, Buena Vista Creek, Buena Vista Lagoon, Lake Calaveras, Encinas Creek, and San Marcos Creek (USFWS 2012).

Due to the programmatic level of this analysis, a formal study to identify and delineate the extent of jurisdictional waters and wetlands within the study area was not conducted. Additional jurisdictional resources likely occur throughout the service area that are tributaries to the major known wetlands listed above or as stand-alone resources. Project-level evaluations would verify the extent of potential jurisdictional waters and wetlands in relation to proposed CIP projects. It is likely that the CIP projects will be sited within footprints of existing facilities or disturbed and developed ROWs that are setback

from jurisdictional waters and wetlands, and therefore, would not result in significant impacts to jurisdictional waters and wetlands. In addition, the CIP projects will incorporate trenchless construction methods (e.g., jack and bore, horizontal directional drilling) for the placement of pipelines at creek crossings, such that the wetland resources are completely avoided. In the event that impacts to jurisdictional resources are determined to be unavoidable, the City and/or CMWD would be required to coordinate the review of CIP projects with the USACE, RWQCB, and/or CDFG, which would ensure that the appropriate studies are conducted and permits are obtained.

### **4.3.3 Regulatory Framework**

#### **4.3.3.1 Federal**

##### **Section 404 of the Clean Water Act**

Section 404 of the Clean Water Act (CWA) requires that a permit be obtained from the USACE prior to the discharge of dredged or fill materials into any "waters of the U.S.," including wetlands. Waters of the U.S. are broadly defined in the USACE's regulations (33 CFR 328) to include navigable waterways, their tributaries, lakes, ponds, and wetlands. Wetlands are defined as "Those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." Such permits often require mitigation to offset losses of these habitat types so there is no net loss. Wetlands that are not specifically exempt from Section 404 regulations (such as drainage channels excavated on dry land and isolated wetlands) are considered to be "jurisdictional wetlands." Under certain circumstances where multiple resources are impacted and interagency consultation is required, the USACE may consult with the U.S. Environmental Protection Agency, USFWS, CDFG, SWRCB, and the various RWQCBs throughout the state in carrying out its discretionary authority under Section 404.

##### **Section 401 of the CWA**

A Section 401 Water Quality Certification, or waiver thereof, is required from the SWRCB or RWQCB before a Section 404 permit becomes valid. The RWQCB will review the project for consistency with the achievement of water quality objectives and the reasonable protection of beneficial uses designated in the Water Quality Control Plan for the San Diego Basin 9 (Basin Plan). In reviewing the project, the RWQCB will consider impacts to waters of the U.S., in addition to filling of isolated wetlands, riparian areas, and headwaters (i.e., areas of high resource value), hydromodification, applicable water quality objectives and designated beneficial uses,, special status species, among other things. Collectively, wetland and water resources regulated by the SWRCB and RWQCB are referred to as waters of the state, and these resources may or may not include waters of the U.S. Usually, mitigation is required (if not already a condition of the 404 permit) in the form of replacement or restoration of adversely impacted waters of the U.S.

##### **Migratory Bird Treaty Act of 1918**

The Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. It is enforced in the U.S. by the USFWS, and makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or

abandonment of eggs or young) may be considered a “take” and is potentially punishable by fines and/or imprisonment. Migratory birds include geese, ducks, shorebirds, raptors, songbirds, and many other species.

### **Federal ESA of 1973**

The U.S. Congress passed the FESA in 1973 to provide a means for conserving endangered and threatened species in order to prevent species extinction, extirpation, etc. The FESA has four major components: the Section 4 provisions for listing species and designating critical habitat; the Section 7 requirement for federal agencies to consult with the USFWS to ensure that their actions are not likely to jeopardize the continued existence of species or result in the modification or destruction of critical habitat; the Section 9 prohibition against “taking” listed species; and the Section 10 provisions for permitting the incidental take of listed species. The term “take” is defined by the FESA to include the concept of “harm,” which agency regulations define to include death or injury that results from modification or destruction of a species habitat (50 CFR 17.3).

### ***Section 10 of the FESA***

Under Section 10(a)(1)(B) of the FESA, the USFWS may permit the incidental take of listed species that may occur as a result of an otherwise lawful activity. In the context of Section 10, incidental take is authorized through an ITP issued pursuant to Section 10(a)(1)(B). To obtain a Section 10(a)(1)(B) ITP, an applicant must prepare a habitat conservation plan that meets the following five criteria: 1) the taking will be incidental to an otherwise lawful activity; 2) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; 3) the applicant will ensure that adequate funding for the plan will be provided; 4) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and, 5) other measures, if any, that the USFWS requires as being necessary or appropriate for purposes of the plan will be met (16 USC Section 1539(a)(2)(A)). The Carlsbad HMP was prepared pursuant to Section 10 of the FESA and the City was issued an umbrella Section 10(a)(1)(B) ITP from the USFWS authorizing take of multiple federally listed species. For projects that could impact federally listed species that occur outside of the Carlsbad HMP ITP coverage, for example Water CIP Project 47 in San Marcos, a separate Section 10(a)(1)(B) ITP or Section 7 Biological Opinion must be obtained from USFWS.

### ***Section 9 of the FESA***

Section 9 of the FESA prohibits any person from “taking” an endangered animal species. Regulations promulgated by USFWS and National Oceanic and Atmospheric Administration make the “take” prohibition generally applicable to threatened animal species as well (50 CFR 17.71). Section 9 thus prohibits the clearing of habitat that results in death or injury to members of a protected species.

An authorization or permit to incidentally take listed species can be obtained either through the Section 7 consultation process or through the Section 10 ITP process. In the context of Section 7, incidental take is authorized through an ITS that is issued consistent with a Biological Opinion. Measures required to conform to the ITS are contained in “reasonable and prudent measures,” as are the terms and conditions necessary to implement those measures. Measures contained in the Section 10(a)(1)(B) ITP reflect the measures set out in an habitat conservation plan developed by the applicant in conjunction with the USFWS, as discussed above. For example, measures to avoid and minimize take of federally listed species in Carlsbad have been incorporated into the umbrella Section 10(a)(1)(B) ITP requirements for the Carlsbad HMP.

##### ***Section 7 of the FESA***

Section 7 of the FESA provides that each federal agency undertaking a federal action which could significantly affect FESA species shall consult with the Secretary of Interior or Commerce, that any actions authorized, funded, or carried out by the agency are “not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of lands determined to be critical habitat” (16 USC Section 1536(a)(2)). The term “agency action” is broadly defined in a manner that includes nearly all actions taken by federal agencies such as permitting or carrying out a project, as well as actions by private parties which require federal agency permits or approval (50 CFR Section 402.02). The consultation requirement of Section 7 is triggered upon a determination that a proposed action “may affect” a listed species or designated critical habitat (50 CFR Section 402.14(a)). If the proposed action is a “major construction” activity, the federal agency proposing the action must prepare a biological assessment to include with its request for the initiation of Section 7 consultation.

Included in the USFWS Biological Opinion is an ITS that authorizes a specified level of take anticipated to result from the proposed action. The ITS contains “reasonable and prudent measures” that are designed to minimize the level of incidental take, adverse modification, or destruction to critical habitat, and that must be implemented as a condition of the take authorization (50 CFR Section 402.14(i)(5)).

The issuance of a Biological Opinion concludes formal consultation, but consultation can be reinitiated if the amount or extent of incidental take authorized is exceeded, the action changes, new information reveals effects of the action not previously considered, or a new species is listed or critical habitat is designated (50 CFR Section 402.16). Once the Biological Opinion is issued, the project applicant must implement the terms and conditions, and conservation measures, mandated by the USFWS. Monitoring and reporting is required to be coordinated with the USFWS during the implementation of conservation measures. For projects that could impact federally listed species that occur outside of the Carlsbad HMP ITP coverage, for example Water CIP Project 47 in San Marcos, a Section 7 Biological Opinion or separate Section 10(a)(1)(B) ITP must be obtained from USFWS.

##### **Coastal Zone Management Act of 1972**

The Coastal Zone Management Act (CZMA) creates a broad program for the management of coastal lands based on land development control. It was enacted to encourage the participation and cooperation of state, local, regional, and federal agencies and governments having programs affecting the coastal zone. The CZMA allows state involvement through the development of Coastal Zone Management Plans (CZMP) for comprehensive management at the state level. The CZMPs define permissible land and water use within the state coastal zone. This coastal zone extends 3 miles seaward and inland as far as necessary to protect the coast. The CZMA also requires federal agencies or licensees to carry out their activities in such a way that they conform to the maximum extent practicable with a state's coastal zone management program. The CCA is California's coastal zone management program under the CZMA. This program is discussed below.

### **4.3.3.2 State**

##### **California Endangered Species Act**

The CESA declares that deserving plant or animal species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the state. CESA establishes that it is state policy to conserve, protect, restore, and

enhance endangered species and their habitats. Under state law, plant and animal species may be formally designated as rare, threatened, or endangered through official listing by the California Fish and Game Commission. Listed species are given greater attention during the land use planning process by local governments, public agencies, and landowners than are species that have not been listed.

CESA authorizes that “[p]rivate entities may take plant or wildlife species listed as endangered or threatened under FESA and CESA, pursuant to a federal ITP issued in accordance with Section 10 of the FESA, if the CDFG certifies that the ITS or ITP is consistent with CESA (Fish and Game Code Section 2080.1(a)).

Section 2081(b) and (c) of the CESA allows CDFG to issue an ITP for a state-listed threatened and endangered species only if specific criteria are met. These criteria can be found in Title 14 CCR, Sections 783.4(a) and (b). No Section 2081(b) permit may authorize the take of “fully protected” species and “specified birds.” If a project is planned in an area where a fully protected species or specified bird occurs, an applicant must design the project to avoid all take; the CDFG cannot provide take authorization under CESA. On private property, endangered plants may also be protected by the Native Plant Protection Act (NPPA) of 1977. Threatened plants are protected by CESA, and rare plants are protected by the NPPA; however, CESA authorizes that “Private entities may take plant species listed as endangered or threatened under the FESA and CESA through a federal ITP issued pursuant to Section 10 of the FESA, if the CDFG certifies that the ITS or ITP is consistent with CESA.” In addition, CEQA requires disclosure of any potential impacts on listed species and alternatives or mitigation that would reduce those impacts. The Carlsbad HMP was prepared pursuant to Section 2081 of the CESA and the City was issued an umbrella Section 2081 ITP from the CDFG authorizing take of multiple state listed species.

#### **CEQA: Treatment of Listed Plant and Animal Species**

FESA and CESA protect only those species formally listed as threatened or endangered (or rare in the case of the state list). Section 15380 of the CEQA Guidelines independently defines “endangered” species of plants or animals as those whose survival and reproduction in the wild are in immediate jeopardy and “rare” species as those who are in such low numbers that they could become endangered if their environment worsens. Therefore, a project normally will have a significant effect on the environment if it will substantially affect a rare or endangered species of animal or plant or the habitat of the species. The significance of impacts to a species under CEQA must be based on analyzing actual rarity and threat of extinction despite legal status or lack thereof.

#### **California Coastal Act of 1976**

The CCA provides for the protection of environmentally sensitive habitat identified by the CDFG from adjacent developments in the coastal zone. The CCA is California's coastal zone management program under the CZMA, discussed above. The CCA establishes the CCC as having jurisdiction over California's coastal zone. The CCA identifies environmentally sensitive habitat areas as any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. The following Public Resources Code section of the CCA provides protection for environmentally sensitive habitat areas:

##### **Section 30240. Environmentally sensitive habitat areas; adjacent developments**

- (a) Environmentally sensitive habitat areas will be protected against any significant disruption of habitat values, and only uses dependent on those resources will be allowed within those areas.

#### 4.3 BIOLOGICAL RESOURCES

- (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas will be sited and designed to prevent impacts which would significantly degrade those areas, and will be compatible with the continuance of those habitat and recreation areas.

Compliance with these and other requirements in the CCA is ensured for specific development projects in the coastal zone through issuance of a CDP. In most incorporated areas within the coastal zone, compliance with the Coastal Act is regulated by local government through the implementation of a certified LCP. The local government typically issues CDPs, unless a project is located within a deferred certification area, such as the Agua Hedionda Lagoon segment of the Carlsbad LCP. CDPs are issued by the CCC in deferred certification areas of the certified LCP. The City implements their approved Carlsbad LCP in regulating developments within the coastal zone according to the CRPOZ Ordinance, as discussed below. CDPs issued by the City are appealable to the CCC only if they are located within an appeals area.

#### **Sections 1601 to 1603 of the California Fish and Game Code**

Streambeds and other drainages in California are subject to regulation by the CDFG. The CDFG considers most drainages to be “streambeds” unless it can be demonstrated otherwise. A stream is defined as a body of water that flows at least periodically or intermittently through a bed or channel with banks and supports fish or other aquatic life. This includes watercourses having a surface or sub-surface flow that supports, or has supported, riparian vegetation. CDFG jurisdiction typically extends to the top of stream banks and dripline of associated riparian canopy, and therefore, usually encompasses a larger area than USACE jurisdiction.

#### **Sections 3503, 3503.5, and 3800 of the California Fish and Game Code**

These sections of the Fish and Game Code prohibit the take or possession of birds, their nests, or eggs. Disturbance that causes nest abandonment and/or loss of reproductive effort (killing or abandonment of eggs or young) is considered a take. Such a take would also violate federal law protecting migratory birds. ITPs are required from the CDFG for projects that may result in the incidental take of species listed by the state as endangered, threatened, or candidate species. The wildlife agencies require that impacts to protected species be minimized to the extent possible and mitigated to a level of insignificance.

#### **Porter-Cologne Water Quality Control Act**

The Porter-Cologne Water Quality Control Act provides for statewide coordination of water quality regulations. The Act established the SWRCB as the state-wide authority and nine separate RWQCBs to oversee smaller regional areas within the state. The Act authorizes the SWRCB to adopt, review, and revise Water Quality Control Policies for all waters of the state (including both surface and ground waters); and directs the RWQCBs to develop regional Basin Plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt water quality control plans on its own initiative. The Water Quality Control Plan for the San Diego Basin 9 (Basin Plan) is designed to preserve and enhance the quality of water resources in the San Diego region for the benefit of present and future generations. The purpose of the plan is to designate beneficial uses of the region’s surface and ground waters, designate water quality objectives for the reasonable protection of those uses, and establish an implementation plan to achieve the objectives.

### **California Natural Community Conservation Planning Act of 1991**

The NCCP Act is designed to conserve habitat-based natural communities at the ecosystem scale while accommodating compatible land uses in coordination with CESA. CDFG is the principal state agency implementing the NCCP Program. The Act established a process to allow for comprehensive, long-term, regional, multi-species, and habitat-based planning in a manner that satisfies the requirements of the state and FESAs (through a companion regional habitat conservation plan). The NCCP program has provided the framework for innovative efforts by the state, local governments, and private interests, to plan for the protection of regional biodiversity and the ecosystems upon which they depend. NCCPs seek to ensure the long-term conservation of multiple species, while allowing for compatible and appropriate economic activity to proceed. The Carlsbad HMP was prepared as part of the MHCP subregional planning pursuant to the NCCP Act.

#### **4.3.3.3 Local**

##### **Multiple Habitat Conservation Program**

The MHCP is a comprehensive, multiple jurisdictional planning program designed to develop an ecosystem preserve in northwestern San Diego County. Implementation of the regional preserve system is intended to protect viable populations of key sensitive plant and animal species and their habitats, while accommodating continued economic development and quality of life for residents of the North County region. The MHCP is one of several large multiple jurisdictional habitat planning efforts in San Diego County, each of which constitutes a subregional plan under the NCCP Act of 1991. The MHCP includes seven incorporated cities in northwestern San Diego County: Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. These jurisdictions will implement their respective portions of the MHCP through citywide “subarea” plans, which describe the specific implementing mechanisms each city will institute for the MHCP. The goal of the MHCP is to conserve approximately 19,000 acres of habitat, of which roughly 8,800 acres (46 percent) are already in public ownership and contribute toward the habitat preserve system for the protection of more than 80 rare, threatened or endangered species. The Carlsbad HMP is the only approved and adopted Subarea Plan under the MHCP.

##### **City of Carlsbad**

##### ***Carlsbad HMP***

As described in Section 4.3.2.1 above, the City approved the Carlsbad HMP in 2004 and adopted ordinance regulations in Chapter 21.210 of the Carlsbad Municipal Code as a condition of receiving approval from the CCC, an ITP from the USFWS pursuant to Section 10(a)(1)(B) of the FESA, and incidental take authorization from the CDFG pursuant to the CESA and Section 2835 of the CFG Code. Since its adoption, the Carlsbad HMP has allowed for citywide permits and authorization for the incidental take of sensitive species in conjunction with private development projects, public projects, and other activities which are consistent with the HMP. The Carlsbad HMP has been successful in contributing toward the conservation of local habitats and recovery of regionally sensitive plant and animal species within Carlsbad. The HMP designates approximately 6,500 acres of the open space lands in Carlsbad for preservation based on its value as habitat for endangered animals and rare, unique or sensitive plant species. The plan identifies how the city Carlsbad can protect and maintain these lands while still allowing additional public and private development consistent with the General Plan and the Growth Management Plan. The purpose and intent of Chapter 21.210 of the Carlsbad Municipal Code in implementing the Carlsbad HMP are summarized below.

#### ***Chapter 21.210 - Habitat Preservation and Management Requirements***

This chapter of the Carlsbad Municipal Code requires all development to comply with the Carlsbad HMP as well as the implementing agreement, permit conditions, the MHCP, the NCCP and 10(a)(1)(B) permit conditions, and the requirements contained in Habitat Preservation and Management Requirements Ordinance. No grading is allowed to occur for projects in Carlsbad until all the processing and permitting requirements of this chapter are fulfilled. The purpose and intent of the Habitat Preservation and Management Requirements Ordinance are to:

- Implement the goals and objectives of the land use and the open space/conservation elements of the Carlsbad General Plan;
- Implement the Carlsbad HMP, the implementing agreement and conditions, the North County MHCP, the California NCCP and 10(a)(1)(B) permit conditions;
- Preserve the diversity of natural habitats in Carlsbad and protect the rare and unique biological resources located within those habitats;
- Assure that all development projects comply with the habitat preservation and conservation standards contained in the Carlsbad HMP;
- Provide a process for permitting limited, incidental impacts to occur to natural habitat areas and the species located therein; and
- Provide a process for allowing minor amendment from the habitat preservation and conservation standards under limited, specified circumstances.

An HMP Permit is required to be obtained from the City of Carlsbad for any development project which directly or indirectly impacts natural habitat within the Carlsbad HMP boundaries.

#### ***Chapter 21.203 – Coastal Resource Protection Overlay Zone Ordinance***

Each of the 15 counties and 53 municipalities along the California coastline, including Carlsbad, is required by the CCA to prepare a LCP. Several CIP projects or portions thereof would occur within the boundaries of the coastal zone within Carlsbad, as identified within the approved Carlsbad LCP. The City of Carlsbad uses its LCP as a planning tool to guide development in the coastal zone, in partnership with the CCC. The LCP contains the ground rules for future development and the protection of coastal resources. The Carlsbad LCP includes two main components: a land use plan, and related implementing measures including a zoning map, and zoning ordinance. In particular, the local coastal land use plans include measures specifically intended to protect natural open space resources, scenic resources, agricultural lands, and public access rights.

Carlsbad's LCP is consistent with the Carlsbad General Plan, but it is a separate document containing separate land use policies and implementation measures which must also be complied with in addition to the General Plan. Approximately one-third of the city is located within the coastal zone. The city's coastal zone has been divided into six segments and each segment is regulated by separate LCPs. The boundaries of the city's coastal zone which were established by the state are depicted on the Land Use Map of the Carlsbad General Plan. Nearly all development proposals within the coastal zone, from removal of natural vegetation, to the construction of master planned communities, require the approval of a CDP in addition to any other permits or entitlements. The land use policies, programs and regulations of the relevant LCP will be referred to in addition to the General Plan, the Municipal Code and other pertinent regulations for guiding land use and development within the coastal zone. The City

issues CDPs in all adopted Carlsbad LCP segments within their jurisdictional boundaries with the exception of the Agua Hedionda Lagoon segment of the Carlsbad LCP, which is a deferred certification area. CDPs in the Agua Hedionda Lagoon segment of the Carlsbad LCP are issued by the CCC. CDPs issued by the City are appealable to the CCC only if they are located within an appeals area. In conformance with the LCP, the City of Carlsbad regulates developments within the coastal zone, including pipelines, according to the CRPOZ Ordinance. The CRPOZ requires that project applicants obtain a CDP.

As defined in Carlsbad Municipal Code, "development (within the coastal zone)" means, on land, in or under water, the placement or erection of any solid material or structure; discharge or disposal of any dredged material or of any gaseous, liquid, solid or thermal waste; grading, removing, dredging, mining or extraction of any materials; change in the density or intensity of use of land, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreational use; change in the intensity of use of water, or of access thereto; construction, reconstruction, demolition or alteration of the size of any structure, including any facility of any private, public or municipal utility; and the removal or harvesting of major vegetation other than for agricultural purposes, kelp harvesting, and timber operations which are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (commencing with Section 4511). As used in this definition, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone line, and electrical power transmission and distribution line. Therefore, pipeline CIP projects would be subject to the Development Standards in Section 21.203.040 of the CRPOZ. Standards include the protection of steep slopes, drainage and erosion control, and habitat protection such as buffers.

#### ***Community Forest Management Plan***

The Carlsbad Community Forest Management Plan is a document that describes guidelines and procedures for planting, maintaining, removing, replacing and preserving trees in rights-of-way and other public places. The Community Forest Management Plan was recommended by a citizen committee and approved by Carlsbad City Council in 2000.

### **4.3.4 Thresholds of Significance**

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the proposed project may have a significant adverse impact on biological resources if it would do any of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFG or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

### **4.3.5 Project Impacts and Mitigation**

This section provides a programmatic assessment of the anticipated impacts to biological resources resulting from the Master Plans and identifies mitigation measures that will be implemented by the City and CMWD to reduce potential impacts to less than significant levels. The analysis of significant impacts is based on the database and literature review, as outlined in the introduction of this chapter; aerial imagery and other mapping sources; and, other sources provided by reference in Section 4.3.8. The criteria for determining significant impacts is outlined above within Section 4.3.4.

#### **4.3.5.1 CIP Projects Addressed in Previous CEQA Documents**

As discussed in Chapter 4, Environmental Analysis, the CIP projects listed below within Table 4.3-1 have been adequately addressed in previous approved and certified CEQA documents, including impacts and mitigation pertaining to special status species, riparian habitat or other sensitive natural communities, protected wetlands, wildlife corridors and nursery sites, local policies or ordinances, or adopted conservation plans. No further analysis of these CIP projects is required for this EIR. In addition, the Quarry Creek Master Plan EIR (EIR 11-02) is currently being prepared which includes Water CIP Project N-9, Water CIP Project 55, and Recycled Water CIP Project ES7. The Vancouver Street HDD Sewer Pipeline MND is also currently being prepared and includes Sewer CIP Project SR-14. Because these documents have not been made available for public review, these projects are addressed in this EIR. However, if these projects are not ultimately approved and developed, these CIP projects would not be constructed.

#### **4.3.5.2 CIP Projects Not Addressed in Previous CEQA Documents and with Effects Found Not to be Significant**

Based on a programmatic assessment, the CIP projects listed below within Table 4.3-2 would not be expected to result in any impacts to biological resources, including special status species, riparian habitat or other sensitive natural communities, protected wetlands, wildlife corridors and nursery sites, local policies or ordinances, or adopted conservation plans. Rationale for the determination is provided. No further analysis of these projects is required for this EIR.

**Table 4.3-1 CIP Projects Adequately Addressed in Previous CEQA Documents**

Master Plan	Previous CEQA Document
<b>Sewer CIP Projects</b>	
SR-6	Final EIR for the Robertson Ranch Master Plan (EIR 03-03; SCH #2004051039)
SR-10	NOE for the Terramar Lift Station and Force Main Replacement (EA 10-10)
SR-25	NOE for the Home Plant Lift Station and Force Main Replacement (CDP 11-07/CUP 11-02)
N-1	Final EIR for the Cantarini/Holly Spring Developments (EIR 02-02; SCH #2002101081)
N-2	Final EIR for the Cantarini/Holly Spring Developments (EIR 02-02; SCH #2002101081)
N-5	Final EIR for the Robertson Ranch Master Plan (EIR 03-03; SCH #2004051039)
N-7	Final EIR for the Dos Colinas Project (EIR 09-01; SCH #2009111085)
N-8	Final EIR for the Robertson Ranch Master Plan (EIR 03-03; SCH #2004051039)
N-10	Final EIR for the Ponto Beach Front Village Vision Plan (EIR 05-05)
N-11	Final EIR for the Calavera Hills Master Plan Phase II, Bridge and Thoroughfare District No.4 & Detention Basins (EIR 98-02; SCH #99111082)
I-3	MND for the Agua Hedionda Sewer lift Station & Gravity Force Mains (SCH #2010081053)
I-4	MND for the Agua Hedionda Sewer lift Station & Gravity Force Mains (SCH #2010081053)
I-5	MND for the Agua Hedionda Sewer lift Station & Gravity Force Mains (SCH #2010081053)
I-6	MND for the Buena Vista Lift Station Sewer Force Main (VC-4) (SCH #2009021085)
<b>Water CIP Projects</b>	
7	Final EIR for the Calavera Hills Master Plan Phase II, Bridge and Thoroughfare District No.4 & Detention Basins (EIR 98-02; SCH #99111082)
8	Final EIR for the Calavera Hills Master Plan Phase II, Bridge and Thoroughfare District No.4 & Detention Basins (EIR 98-02; SCH #99111082)
40	Final EIR for the Robertson Ranch Master Plan (EIR 03-03; SCH #2004051039)
R6	NOE for the Maerkle Reservoir Pressure Control Hydroelectric Facility (CMWD Project No. 5025)
<b>Recycled Water CIP Projects</b>	
ES3	Final EIR for the Calavera Hills Master Plan Phase II, Bridge and Thoroughfare District No.4 & Detention Basins (EIR 98-02; SCH #99111082)

**Table 4.3-2 CIP Projects with Effects Found Not to be Significant to Biological Resources**

CIP Projects			Rationale for Determination
Sewer	Water	Recycled Water	
N-6, N-12	2, 19, 22, 25, 44, 49, 50, 54, F8, F12, F14, PS1, PS2, 51, 52, 39, 45	ES4A, ES4B, ES4C, ES6, ES10, ES12, ES13, ES15, ES16, P73, P74, P75, P78, P80, P81	These CIP projects involve installation of new facilities located entirely within, and surrounded by, existing disturbed and/or developed land.
SR-14			This CIP project involves installation of new facilities and would implement trenchless construction methods (e.g., jack and bore) and setbacks to avoid existing biological resources. <a href="#">Trenchless construction activities would include implementation of the methods recommended by the CDFG and USFWS, listed in Section 2.6.2, Project Design Features, to prevent and respond to hydrofracture.</a>

**Table 4.3-2 CIP Projects with Effects Found Not to be Significant to Biological Resources (continued)**

CIP Projects			Rationale for Determination
Sewer	Water	Recycled Water	
C-1, C-2, C-3, C-4, I-2, SR-1, SR-2, SR-5, SR-8, SR-13, SR-18	34, 38, 41, 43, 44, 54, 56, F1, F2, F3, F5, F6, F7, F9, F10, F11, F15, R1, R2, R4, R7, PS4	P79	These CIP projects involve repair, maintenance, replacements, upsize, improvements, and/or other minor modifications to existing facilities, and are located entirely within, and surrounded by, existing disturbed and/or developed land.
	46	P77	These CIP projects involve realignment or relocation of existing facilities and are located entirely within, and surrounded by, existing disturbed and/or developed land.
N-4, SR-21			These CIP projects involve extensions to existing pipeline facilities and are located entirely within, and surrounded by, existing disturbed and/or developed land.
SR-16, SR-17, SR-20, SR-24			These CIP projects involve rehabilitation of existing manholes or pipeline facilities using in-place rehabilitation and/or cured-in-place lining methods that do not require land disturbance or other activities that could significantly impact existing biological resources.
Vancouver Lift Station Abandonment	PS3		These CIP projects involve removal of existing facilities that are located entirely within, and surrounded by, existing disturbed and/or developed land.
C-5, SR-4, SR-7	R8	P76	These CIP projects involve condition assessment, monitoring, or treatment of existing facilities and do not require land disturbance or other activities that could significantly impact existing biological resources.
E-1, E-2			These CIP projects are located at the Encina Water Pollution Control Facility and involve activities that do not require land disturbance or other activities that could significantly impact existing biological resources.

### 4.3.5.3 Issue 1 – Candidate, Sensitive, or Special Status Species

#### Biological Resources Issue 1 Summary

**Would implementation of the Sewer, Water, and Recycled Water Master Plans result in a substantial adverse effect, either directly or through habitat modifications, on any plant or wildlife species identified as a candidate, sensitive, or special status species?**

**Impact:** Implementation of the Sewer, Water, and Recycled Water Master Plans may result in direct and indirect impacts to sensitive plant and wildlife species.

**Mitigation:** Project-Level Biological Resource Surveys (Bio-1A); HMP Covered Species Surveys and Habitat Mitigation (Bio-1B); CIP Project 47 California Gnatcatcher Surveys and Habitat Mitigation (Bio-1C); Avoidance of Nesting Birds and Raptors (Bio-1D); Pre-Construction Biological Resource Surveys (Bio-1E); Orange Construction Fencing (Bio-1F); Construction-Related Noise (Bio-1G); and Construction Staging Areas (Bio-1H); Contractor Training (Bio-1I).

**Significance Before Mitigation:** Potentially significant.

**Significance After Mitigation:** Less than significant.

## Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the Master Plans would have a significant impact if it would result in a substantial adverse effect, either directly or through habitat modifications, on any sensitive or special status species.

## Impact Analysis

Based on a programmatic assessment, the CIP projects listed below in Table 4.3-3 and Table 4.3-4 could occur on and/or in the immediate vicinity of an undeveloped area that may support special status plant and wildlife species, and therefore, could result in potential significant direct and/or indirect impacts on special status species and their habitat.

With the exception of Water CIP Project 47, as discussed below, all of the projects listed in Tables 4.3-3 and 4.3-4 would occur within Carlsbad. As such, these projects would be subject to the conditions of the adopted Carlsbad HMP and associated species avoidance, minimization, and compensatory mitigation requirements. The Carlsbad HMP was in part developed to set aside land in preservation to use as mitigation for future projects. Appendix B of the Carlsbad HMP contains a tabular list of projects proposed by the City, including the CMWD, which are considered covered projects eligible to mitigate impacts at the Lake Calavera City Mitigation Bank. These include projects required for the City and CMWD to complete the Master Plans. The Carlsbad HMP requires that all development projects implement specific avoidance, minimization, and mitigation measures if they would have the potential to impact special status species, sensitive habitats, and lands designated as HMP Cores, Linkages, Existing Hardline Conservation Areas, Proposed Hardline Conservation Areas, and Standards Areas. Based on a programmatic evaluation, the special status species with potential to be impacted by CIP projects within Carlsbad are all likely to be covered species or narrow endemic species under the Carlsbad HMP. Species not covered under the Carlsbad HMP are not likely to occur within the CIP project sites. Therefore, species not covered under the Carlsbad HMP are not likely to be adversely affected by CIP projects. Project-level surveys and/or avoidance and minimization measures are proposed herein for the CIP projects listed in Table 4.3-3 to ensure that the appropriate measures are implemented to address special status species with the potential to occur, including projects that are not covered under the Carlsbad HMP.

Water CIP Project 47 occurs within San Marcos, and as such, would not be subject to the provisions of the Carlsbad HMP that address habitat impacts. Portions of Water CIP Project 47 could occur within Diegan coastal sage scrub that could be suitable for the federally threatened coastal California gnatcatcher. If Water CIP Project 47 is determined to have a potential to impact this species, the City and CMWD would be required to implement avoidance, minimization, and mitigation measures in accordance with CEQA guidelines, FESA, and CESA. As stated in Section 2.6-1.1 of this EIR, prior to construction activities where it has been demonstrated through project-level studies that a federally listed species could be affected by the CIP project, the City and CMWD would comply with Section 7 and/or Section 10 of FESA, as administered by the USFWS. As a requirement for FESA compliance, the City and CMWD will complete formal consultations with, and/or obtain permits from, the USFWS pursuant to Section 7 or 10 of the FESA. Formal consultation with the USFWS pursuant to Section 7 of the FESA would apply to CIP projects requiring federal funding or authorization. The special terms and conditions outlined in the Biological Opinion resulting from Section 7 consultations will be implemented by the City and CMWD and/or other responsible parties according to the timing required in the Biological Opinion. In the absence of federal funding or authorizations, the City and CMWD will apply

for a Section 10(a)(1)(B) permit from the USFWS pursuant to Section 10 of the FESA. The City and CMWD will prepare a habitat conservation plan or low-effect habitat conservation plan for approval by the USFWS.

**Table 4.3-3 CIP Projects with Potential to Result in Significant Direct and Indirect Impacts to Special Status Species**

Master Plan	Rationale for Determination
<b>Sewer CIP Projects</b>	
N-3	Sewer CIP Project N-3 would require construction of sewer pipelines within areas that are currently undeveloped, but planned for future public roadways associated with the Mandana property. The CIP project will be restricted to areas outside of Existing Hardline Conservation Areas for the Carlsbad HMP. Potential direct and indirect impacts could occur to special status species during project construction.
N-9	Sewer CIP Project N-9 would require construction of sewer pipelines within areas that are currently undeveloped, but planned for future public roadways. Based on the current existing conditions, the CIP project would require construction within an undeveloped area that could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during project construction. Sewer CIP Project N-9 is currently being analyzed in a separate CEQA document for the Quarry Creek Master Plan EIR (EIR 11-02). Because the Quarry Creek Master Plan EIR has not been made available for public review, this project is addressed in this EIR. However, if the Quarry Creek Master Plan EIR is not ultimately approved and developed, this CIP project would not be implemented.
SR-3	Sewer CIP Project SR-3 involves rehabilitation of 35 manholes. A number of the manholes could occur within an undeveloped area that could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during the rehabilitation operations.
SR-9	Sewer CIP Project SR-9 would require refurbishment and/or replacement activities at existing sewer lines and manholes at locations throughout the sewer service area that are not determined at this time. Some of the known sewer lines and manholes within the service area are located on or in the immediate vicinity of sensitive habitat areas. This evaluation assumes that the activities could occur within an undeveloped area that could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during project construction.
SR-17	Sewer CIP Project SR-17 involves rehabilitation using cured-in-place pipe liner methods of an existing sewer pipeline that runs south of SR-78, generally east of El Camino Real and west of College Boulevard. Some of the manholes and potential staging areas to be accessed during rehabilitation operations could occur within an undeveloped area that could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during the rehabilitation operations.
SR-19	Sewer CIP Project SR-19 would require construction of a decomposed granite or gravel access road to accommodate maintenance access and provide a public trail adjacent to Batiquitos Lagoon and within an undeveloped area. This habitat could be suitable for species status species, including Belding's savannah sparrow, California least tern, and western snowy plover, among others. SR-19 would also occur within USFWS-designated Critical Habitat for the coastal California gnatcatcher, as well as within Existing Hardline Conservation Areas for the Carlsbad HMP and the boundaries of the Batiquitos Lagoon Ecological Reserve. Potential direct and indirect impacts could occur to special status species during project construction.
SR-22	Sewer CIP Project SR-22 would require construction of 12-foot wide decomposed granite or gravel access roads within existing easements or trails to accommodate access for maintenance and assessment at existing manholes throughout the sewer, water, and recycled water areas. A number of planned access road alignments associated with SR-22 occur within an undeveloped area that could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during project construction.
SR-23	Sewer CIP Project SR-23 would require construction of 12-foot wide decomposed granite or gravel access roads, pipeline relocation, and/or pipeline realignment along an existing sewer alignment adjacent to Encinas Creek. Portions of CIP Project SR-23 occur within an undeveloped area that are could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during project construction.

**Table 4.3-3 CIP Projects with Potential to Result in Significant Direct and Indirect Impacts to Special Status Species (continued)**

Master Plan	Rationale for Determination
<b>Water CIP Projects</b>	
10, 17	Water CIP Projects 10 and 17 would require construction of water pipelines within areas that are currently undeveloped, but planned for future public roadways. The projects would occur within areas that are currently undeveloped that could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during project construction.
47	Water CIP Project 47 would require construction of water pipeline to connect to an existing reservoir, portions of which, could occur within an undeveloped area that could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during project construction.
55	Water CIP Project 55 would require construction of water pipelines within areas that are currently undeveloped, but planned for future public roadways. Based on the current existing conditions, the CIP project would require construction within an undeveloped area that could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during project construction. Water CIP Project 55 is currently being analyzed in a separate CEQA document for the Quarry Creek Master Plan EIR (EIR 11-02). Because the Quarry Creek Master Plan EIR has not been made available for public review, this project is addressed in this EIR. However, if the Quarry Creek Master Plan EIR is not ultimately approved and developed, this CIP project would not be implemented.
<b>Recycled Water CIP Projects</b>	
ES7	Recycled Water CIP Project ES7 would require construction of recycled water pipelines within areas that are currently undeveloped, but planned for future public roadways. Based on the current existing conditions, the CIP project would require construction within an undeveloped area that could be suitable for special status species. Potential direct and indirect impacts could occur to special status species during project construction. Recycled Water CIP Project ES7 is currently being analyzed in a separate CEQA document for the Quarry Creek Master Plan EIR (EIR 11-02). Because the Quarry Creek Master Plan EIR has not been made available for public review, this project is addressed in this EIR. However, if the Quarry Creek Master Plan EIR is not ultimately approved and developed, this CIP project would not be implemented.

**Table 4.3-4 CIP Projects with Potential to Result in Significant Indirect Impacts (Only) to Special Status Species**

Master Plan	Rationale for Determination
<b>Sewer CIP Projects</b>	
I-1	Sewer CIP Project I-1 would require construction of sewer pipelines within disturbed and developed land that occurs adjacent to an undeveloped area. Direct impacts to the undeveloped area would be avoided through CIP project siting and trenchless construction methods (e.g., jack and bore) for the crossing of Buena Creek. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
SR-11	Sewer CIP Project SR-11 would be located within disturbed and developed land that occurs adjacent to an undeveloped area that could be suitable for special-status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
SR-12	Sewer CIP Project SR-12 would require the relocation of an existing sewer line adjacent to Agua Hedionda Lagoon and adjacent to an undeveloped area that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
SR-15	Sewer CIP Project SR-15 would be located within disturbed and developed land that occurs adjacent to an undeveloped area that could be suitable for special-status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.

**Table 4.3-4 CIP Projects with Potential to Result in Significant Indirect Impacts (Only) to Special Status Species (continued)**

Master Plan	Rationale for Determination
<b>Water CIP Projects</b>	
21	Water CIP Project 21 would require installation of a pressure regulating station and water pipelines within disturbed and developed land. Portions of the project would occur adjacent to an undeveloped area that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
48	Water CIP Project 48 would require replacement or rehabilitation of water pipelines within an existing disturbed, dirt access road located within undeveloped land in the Calavera Hills area. Construction activities would occur adjacent to an undeveloped area that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
R3	Water CIP Project R3 would require replacement of the existing reservoir cover at the Maerle Reservoir. The replacement activities would occur entirely within the developed footprint of the Maerle Reservoir, however an undeveloped area occurs adjacent to the Reservoir that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
R5	Water CIP Project R5 would require removal and relocation of the existing MG "E" tank. The activities would occur entirely within the developed footprint of the existing tank, however an undeveloped area occurs adjacent to the tank that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
<b>Recycled Water CIP Projects</b>	
ES1	Recycled Water CIP Expansion Segment 1 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
ES2	Recycled Water CIP Expansion Segment 2 would require construction of recycled water pipeline within developed areas, portions of which require suspension of a pipeline from an existing bridge adjacent to an undeveloped area associated with Agua Hedionda Lagoon that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
ES5	Recycled Water CIP Expansion Segment 5 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area associated with Agua Hedionda Lagoon that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
ES8	Recycled Water CIP Expansion Segment 8 would require construction of recycled water pipeline within developed areas, portions of which require suspension of a pipeline from an existing bridge adjacent to an undeveloped area associated with Batiquitos Lagoon that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
ES9	Recycled Water CIP Expansion Segment 9 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
ES11	Recycled Water CIP Expansion Segment 11 would require construction of recycled water pipeline within developed areas, portions of which require suspension of a pipeline from an existing bridge adjacent to an undeveloped area associated with Agua Hedionda Lagoon that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.

**Table 4.3-4 CIP Projects with Potential to Result in Significant Indirect Impacts (Only) to Special Status Species (continued)**

Master Plan	Rationale for Determination
ES14	Recycled Water CIP Expansion Segment 14 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area, including Existing Hardline Conservation Areas for the Carlsbad HMP, that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
ES17	Recycled Water CIP Expansion Segment 17 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area, including Existing Hardline Conservation Areas for the Carlsbad HMP, that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.
ES18	Recycled Water CIP Expansion Segment 18 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area that could be suitable for special status species. No habitat or trees would need to be removed to install this CIP project. Potential indirect noise-related impacts could occur to special status bird species if project construction would coincide with the breeding season.

### Direct Impacts

Direct impacts include the direct take, removal, or displacement of special status species and their habitat through activities such as clearing, grubbing, grading, and other land disturbance activities. Removal of habitat could result in displacement of special status wildlife and less habitat available within a species' range to carry out vital life history requirements such as breeding, foraging, dispersal, migration, aestivation (i.e., underground dormancy or torpor during the summer) and predator evasion. As evaluated above, implementation of the Master Plans through construction of the CIP projects listed in Table 4.3-3 would have the potential to result in direct impacts to special status plant and wildlife species. Special status species could be inadvertently killed, trapped, trampled, or otherwise harmed by construction activities of these CIP projects. Direct impacts would be considered significant.

In addition, the CIP projects listed in Table 4.3-3 could occur on or in the immediate vicinity of areas that contain trees, shrubs, and man-made structures (e.g., buildings) that provide suitable nesting habitat for a variety of bird species, including raptors, protected under the MBTA and CFG Code. Construction activities could result in the removal or trimming of trees and shrubs during the general bird nesting season (January 15 through August 31), and therefore, could result in impacts to nesting birds in violation of the MBTA and CFG Code. Direct impacts could occur as a result of removal of vegetation supporting an active nest. These impacts would be considered significant in violation of the MBTA and CFG Code.

### Indirect Impacts

Potential indirect impacts to special status species and their habitat from construction of the CIP projects listed within Tables 4.3-3 and 4.3-4 under the Master Plans could include those resulting from temporary increases in noise and vibration. Night lighting is also a typical indirect impact of construction; however, as discussed in Section 2.6.2, Project Design Features, the City and CMWD have committed to daytime construction hours and construction of the CIP projects would not require the use of nighttime lighting. CIP construction activities could result in temporary increases in noise levels, which could adversely affect special status wildlife species occupying adjacent habitats. Construction activities could result in adverse noise and vibration in the immediate vicinity of an active bird nest, such that the disturbance results in a nest failure, which would be a violation of the MBTA and CFG Code. CIP construction activities could also result in inadvertent intrusions of construction equipment and

personnel into sensitive habitats adjacent to construction zones that may support special status species. These indirect impacts are considered significant.

As described in Section 2.6.1.1 of this EIR, construction activities for CIP projects would comply with the federal CWA, California's Porter-Cologne Water Quality Control Act, the implementing regulations of the SWRCB and RWQCB, and the NPDES Program, which would include the preparation of Erosion Control Plans and SWPPPs, and the implementation of prescribed BMPs, thereby avoiding and minimizing potential indirect impacts to special status species and their habitat during project construction. [For all trenchless construction activities, the City or CMWD will implement the methods recommended by the CDFG and USFWS, listed in Section 2.6, to prevent and respond to hydrofracture, which could result in water pollution.](#) In addition, and as described in Section 2.6.1.1 of this EIR, BMPs would be implemented to minimize fugitive dust emissions and other criteria pollutant emissions during construction of CIP projects, thereby reducing potential indirect impacts associated with fugitive dust to less than significant levels.

## Mitigation Measures

### Direct Impacts

Based on a programmatic analysis, the following CIP projects could occur on and in the immediate vicinity of an undeveloped area that could support special status species. Therefore, construction activities associated with these CIP projects could have potential significant direct and indirect impacts on special species and their habitat potentially located on and immediately adjacent to CIP project sites, warranting future project-level biological studies and mitigation:

- **Sewer CIP Projects:** N-3, SR-3, SR-9, SR-17, SR-19, SR-22, and SR-23
- **Water CIP Projects:** 10, 17, and 47

In addition, the following CIP projects for which separate CEQA documentation is currently being prepared (Quarry Creek Master Plan EIR) could occur on and in the immediate vicinity of an undeveloped area that could support special status species. Construction activities associated with these CIP projects could have potential significant direct and/or indirect impacts on special species and their habitat. Because the CEQA document has not yet been made available for public review, the CIP projects are also addressed in this EIR. If the larger project covering the CIP projects is not ultimately approved and developed, the CIP projects would not be implemented. However, if the larger project is approved and developed, the CIP projects would be subject to the mitigation requirements of the separate CEQA document:

- **Sewer CIP Projects:** N-9
- **Water CIP Projects:** 55
- **Recycled Water CIP Projects:** ES7

Implementation of mitigation measures Bio-1A through Bio-1D below would reduce potential significant direct impacts on special species and their habitat for the 13 projects listed above to a less than significant level. Implementation of mitigation measures Bio-1E through Bio-1I would further reduce potential significant indirect impacts to a less than significant level.

**Bio-1A Project-Level Biological Resource Surveys.** During the design phase and prior to the construction of CIP projects N-3, N-9, SR-3, SR-9, SR-17, SR-19, SR-22, SR-23, 10, 17, 47, 55,

and ES7, the City and CMWD shall retain a qualified biologist to conduct project-level biological surveys.

The surveys shall verify whether the project would occur on or in the immediate vicinity of natural habitat and habitat suitable for special status species. The surveys shall also identify if the project could result in direct or indirect impacts to natural habitat and special status species. The survey results shall be submitted to the City and CMWD to determine the need for further surveys and project-level analyses for subsequent CEQA documentation and the issuance of any discretionary actions or permits for the project.

If the Quarry Creek Master Plan project covering CIP projects N-9, 55, and ES7 is ultimately approved and developed, the City and CMWD shall implement the specific mitigation requirements of the Quarry Creek Master Plan EIR (EIR 11-02) accordingly.

**Bio-1B HMP Covered Species Surveys and Habitat Mitigation.** If it is demonstrated through the implementation of mitigation measure Bio-1A that CIP projects N-3, N-9, SR-3, SR-9, SR-17, SR-19, SR-22, SR-23, 10, 17, 55, or ES7 could directly or indirectly impact natural habitat that is suitable for special status species addressed within the Carlsbad HMP, the City and CMWD shall retain a qualified biologist to conduct focused, presence/absence surveys for rare plants and/or protocol-level surveys for special status wildlife species, as determined necessary for subsequent CEQA documentation and the issuance of any discretionary actions or permits for the project. Surveys shall follow protocols and guidelines approved by the USFWS, CDFG, and CNPS, and shall be conducted by qualified biologists permitted by the USFWS and/or CDFG, where applicable, and in accordance with the Carlsbad HMP and Carlsbad Municipal Code.

The City and CMWD shall adhere to the HMP permit and general conditions pertaining to HMP habitat and covered species. Impacts to HMP covered species shall be avoided and minimized to the maximum extent practicable in conformance with the Carlsbad HMP and Carlsbad Municipal Code. Impacts to natural habitat shall be mitigated in accordance with mitigation measure Bio-2A.

**Bio-1C CIP Project 47 California Gnatcatcher Surveys and Habitat Mitigation.** If it is demonstrated through the implementation of mitigation measure Bio-1A that CIP project 47 could directly or indirectly impact the federally threatened coastal California gnatcatcher, the City and CMWD shall implement the following mitigation measures, at minimum, and in addition to any avoidance, minimization, and conservation measures prescribed by the USFWS during consultation and/or permitting:

1. Within one year prior to CIP project construction, the City and CMWD shall retain a permitted biologist to commence focused surveys in accordance with USFWS protocols to determine the presence or absence of the coastal California gnatcatcher. Documentation of the survey results will be provided to the City and CMWD, and USFWS, within 45 days of completing the final survey.
2. If the coastal California gnatcatcher could be directly or indirectly impacted then in compliance with FESA, and as stated in Section 2.6-~~1.1~~ of this EIR, the City and CMWD shall consult and obtain all applicable regulatory permits and authorizations from the USFWS, and the conditions of the regulatory permits and authorizations will be

implemented accordingly and/or the CIP project would be modified to avoid direct “take” of the species and/or minimize adverse affects to the species and occupied habitat.

3. The City and CMWD shall mitigate the loss of habitat according to mitigation measure Bio-2A.

**Bio-1D Avoidance of Nesting Birds and Raptors.** To prevent direct impacts to nesting birds, including raptors, protected under the federal MBTA and CFG Code, the City and CMWD shall enforce the following:

Prior to removal or damage of any active nests or any tree pruning or removal operations during the prime nesting seasons, that being from March 15 to May 30, a certified biologist shall survey the trees to determine if there are any active nests within 500 feet of the area of tree removal or pruning. If any active nests are located within 500 feet, no tree pruning or removal operations can occur until the nests are vacated or until the end of the prime breeding season, whichever occurs later. In addition, prior to any tree removal or pruning operations proposed outside of the prime nesting season but within the period of January 15 to September 15, a confirmation is required from a certified biologist that no disturbance to active nests or nesting activities would occur. Documentation from a certified biologist consistent with these requirements shall be submitted to the City Planner for review and approval. A note to this effect shall be placed on the construction plans.

#### Indirect Impacts

Based on a programmatic analysis, the following CIP projects are sited within existing disturbed and developed land that occurs adjacent to an undeveloped area that could support special status species. Although future project-level biological studies and mitigation are not warranted, construction activities associated with these CIP projects during the general breeding season (January 15 to September 15) could have potential significant indirect noise impacts (only) on special status species and their habitat potentially located adjacent to CIP project sites, warranting additional avoidance and minimization measures:

- **Sewer CIP Projects:** I-1, SR-11, SR-12, and SR-15
- **Water CIP Projects:** 21, 48, R3, and R5
- **Recycled Water CIP Projects:** ES1, ES2, ES5, ES8, ES9, ES11, ES14, ES17, and ES18

Implementation of mitigation measures Bio-1E through Bio-1I below would reduce potential significant indirect impacts on special species and their habitat to a less than significant level.

**Bio-1E Pre-Construction Biological Resource Surveys.** Prior to construction of CIP projects or portions of projects that will occur within disturbed or developed land, but will be sited immediately adjacent to an undeveloped open space area (i.e., an area supporting naturalized habitat, sensitive habitat, and/or habitat potentially suitable for special status species), the City and CMWD shall retain a qualified biologist to perform a pre-construction survey to verify existing biological resources adjacent to the project construction areas. The City and CMWD shall provide the biologist with a copy of the CIP project plans that clearly depict the construction work limits, including construction staging and storage areas, in order to determine which specific portion(s) of the project will require inspection of adjacent open space areas during the pre-construction survey. At minimum, the biologist shall perform a visual inspection of the adjacent open space area in order to characterize the existing habitat

types and determine the likelihood for special status species to occur, including the coastal California gnatcatcher, migratory songbirds, and other bird species with the potential to breed in the area. The pre-construction survey results shall be submitted to the City and CMWD prior to construction in order to verify the need for the additional construction measures proposed within Bio-1F through Bio-1I below.

**Bio-1F Orange Construction Fencing.** If it is confirmed through the implementation of mitigation measure Bio-1E that the CIP project would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for special status species, the City and CMWD shall retain a qualified biologist to supervise the installation of temporary orange construction fencing, which clearly delineates the edge of the approved limits of grading and clearing, and the edges of environmentally sensitive areas that occur beyond the approved limits. This fencing shall be installed prior to construction, and maintained for the duration of construction activity. Fencing shall be installed in a manner that does not impact habitats to be avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied and mitigation identified. Temporary orange fencing shall be removed upon completion of construction of the project. Implementation of this measure shall be verified by the City prior to and concurrent with construction.

**Bio-1G Construction-Related Noise.** Construction noise created during the general breeding season (January 15 to September 15) that could affect the breeding of the coastal California gnatcatcher, migratory songbirds, and other bird species associated with adjacent undeveloped areas shall be avoided. No loud construction noise (exceeding 60dBA hourly average, adjusted for ambient noise levels, at the nesting site) may take place within 500 feet of active nesting sites during the general breeding season (January 15 through September 15).

If it is confirmed through the implementation of mitigation measure Bio-1E that the CIP project could result in construction-related noise impacts to breeding birds during the general breeding season, the City and CMWD shall retain a qualified biologist to monitor the construction operations. The biological monitor shall be present to monitor construction activities that occur adjacent to the undeveloped open space area potentially supporting breeding birds. The monitor shall verify that construction noise levels do not exceed 60dBA hourly average and shall have the ability to halt construction work, if necessary, and confer with the City, USFWS, and CDFG to ensure the proper implementation of additional protection measures during construction. The biologist shall report any violation to the USFWS and/or CDFG within 24 hours of its occurrence.

**Bio-1H Construction Staging Areas.** If it is confirmed through the implementation of mitigation measure Bio-1E that the CIP project would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for special status species, the City and CMWD shall design final CIP project construction staging areas such that no staging areas shall be located within sensitive habitat areas. The construction contractor shall receive approval by the City Planning & Engineering Divisions prior to mobilizations and staging of equipment outside of the project boundaries.

**Bio-1I Contractor Training.** If it is confirmed through the implementation of mitigation measure Bio-1E that the CIP project would occur immediately adjacent to sensitive habitat areas and/or habitat potentially suitable for special status species, the City and CMWD shall retain a

qualified biologist to attend pre-construction meetings to inform construction crews of the sensitive resources and associated avoidance and/or minimization requirements.

## Significance After Mitigation

Potential direct and indirect impacts on special status species would be reduced to a less than significant level with implementation of mitigation measures Bio-1A through Bio-1I.

### 4.3.5.4 Issue 2 – Riparian Habitat and Other Sensitive Natural Communities

#### Biological Resources Issue 2 Summary

**Would implementation of the Sewer, Water, and Recycled Water Master Plans have a substantial adverse effect on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS?**

**Impact:** Implementation of the Master Plans has the potential to result in impacts to several upland, riparian, and wetland habitat types that are considered sensitive natural communities.

**Mitigation:** HMP Covered Species Surveys and Habitat Mitigation (Bio-1B); Pre-Construction Biological Resource Surveys (Bio-1E); Orange Construction Fencing (Bio-1F); Construction Staging Areas (Bio-1H); Contractor Training (Bio-1I); Habitat Compensation for Projects within Carlsbad (Bio-2A); and Habitat Compensation for Projects Outside of Carlsbad (Bio-2B).

**Significance Before Mitigation:** Potentially significant.

**Significance After Mitigation:** Less than significant.

## Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the Master Plans would have a significant impact if it would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS.

## Impact Analysis

Based on a programmatic assessment, the CIP projects listed below within Table 4.3-5 and Table 4.3-6 could occur on and/or in the immediate vicinity of undeveloped land that may support riparian habitat and/or other sensitive natural communities. Therefore, these projects could result in potential significant direct and/or indirect impacts on riparian habitat and/or other sensitive natural communities.

### Direct Impacts

Direct impacts include the direct removal or disturbance of riparian habitat or other sensitive natural communities through activities such as clearing, grubbing, grading, and other land disturbance activities. As evaluated above, construction of CIP projects listed above within Table 4.3-5 have the potential to result in direct impacts to riparian habitat and several types of sensitive natural communities. Habitat loss or disturbance as a consequence of these CIP project construction activities could result in diminishing and degrading of open space areas, reductions or eliminations of habitat functions and values, and impacts to species, among other adverse impacts. These direct impacts would be considered significant.

**Table 4.3-5 CIP Projects with Potential to Result in Significant Direct Impacts to Riparian Habitat and/or Other Sensitive Natural Communities**

Master Plan	Rationale for Determination
<b>Sewer CIP Projects</b>	
N-3	Sewer CIP Project N-3 would require construction of sewer pipelines within areas that are currently undeveloped, but planned for future public roadways associated with the Mandana property. The CIP project will be restricted to areas outside of Existing Hardline Conservation Areas for the Carlsbad HMP; however, could result in direct and indirect impacts to sensitive natural communities.
N-9	Sewer CIP Project N-9 would require construction of sewer pipelines within areas that are currently undeveloped, but planned for future public roadways. Based on the current existing conditions, the CIP project would require construction within an undeveloped area that could support sensitive natural communities. Potential direct and indirect impacts could occur to sensitive natural communities during project construction. Sewer CIP Project N-9 is currently being analyzed in a separate CEQA document for the Quarry Creek Master Plan EIR (EIR 11-02). Because the Quarry Creek Master Plan EIR has not been made available for public review, this project is addressed in this EIR. However, if the Quarry Creek Master Plan EIR is not ultimately approved and developed, this CIP project would not be implemented.
SR-3	Sewer CIP Project SR-3 involves rehabilitation of 35 manholes. A number of the manholes could occur within an undeveloped area that could support sensitive natural communities. Potential direct and indirect impacts could occur to support sensitive natural communities during the rehabilitation operations.
SR-9	Sewer CIP Project SR-9 would require refurbishment and/or replacement activities at existing sewer lines and manholes at locations throughout the sewer service area that are not determined at this time. This evaluation assumes that the activities could occur within sensitive natural communities. Potential direct and indirect impacts could occur to sensitive natural communities during project construction.
SR-17	Sewer CIP Project SR-17 involves rehabilitation using cured-in-place pipe liner methods of an existing sewer pipeline. Some of the manholes and potential staging areas to be accessed during rehabilitation operations could occur within an undeveloped area that could support sensitive natural communities. Potential direct and indirect impacts could occur to support sensitive natural communities during the rehabilitation operations.
SR-19	Sewer CIP Project SR-19 would require construction of a decomposed granite or gravel access road to accommodate maintenance access and provide a public trail adjacent to Batiquitos Lagoon and within an undeveloped area. <del>This habitat could be suitable for species status species, including Belding's savannah sparrow, California least tern, and western snowy plover, among others. SR 19 would also occur within USFWS designated Critical Habitat for the coastal California gnatcatcher, as well as within Existing Hardline Conservation Areas for the Carlsbad HMP and the boundaries of the Batiquitos Lagoon Ecological Reserve</del> <u>that could support sensitive natural communities</u> . Potential direct and indirect impacts could occur to <del>special status species</del> <u>sensitive natural communities</u> during project construction.
SR-22	Sewer CIP Project SR-22 would require construction of 12-foot wide decomposed granite or gravel access roads within existing easements or trails to accommodate access for maintenance and assessment at existing manholes throughout the sewer, water, and recycled water areas. A number of planned access road alignments associated with SR-22 occur within an undeveloped area that could be suitable for special status species. Potential direct and indirect impacts could occur to <del>special status species</del> <u>sensitive natural communities</u> during project construction.
SR-23	Sewer CIP Project SR-23 would require construction of 12-foot wide decomposed granite or gravel access roads, pipeline relocation, and/or pipeline realignment along an existing sewer alignment adjacent to Encinas Creek. Portions of CIP Project SR-23 occur within an undeveloped area that are could <del>be suitable for special status species</del> <u>support sensitive natural communities</u> . Potential direct and indirect impacts could occur to <del>special status species</del> <u>sensitive natural communities</u> during project construction.
<b>Water CIP Projects</b>	
10, 17	Water CIP Projects 10 and 17 would require construction of water pipelines within areas that are currently undeveloped, but planned for future public roadways. The projects would occur within areas that are currently characterized by undeveloped areas that could support sensitive natural communities. Potential direct and indirect impacts could occur to sensitive natural communities during project construction.
47	Water CIP Project 47 would require construction of water pipeline to connect to an existing reservoir, portions of which, could occur within an undeveloped area that could support sensitive natural communities. Potential direct and indirect impacts could occur to sensitive natural communities during project construction.

**Table 4.3-5 CIP Projects with Potential to Result in Significant Direct Impacts to Riparian Habitat and/or Other Sensitive Natural Communities (continued)**

Master Plan	Rationale for Determination
<b>Recycled Water CIP Projects</b>	
55	Water CIP Project 55 would require construction of water pipelines within areas that are currently undeveloped, but planned for future public roadways. Based on the current existing conditions, the CIP project would require construction within an undeveloped area that could support sensitive natural communities. Potential direct and indirect impacts could occur to sensitive natural communities during project construction. Water CIP Project 55 is currently being analyzed in a separate CEQA document for the Quarry Creek Master Plan EIR (EIR 11-02). Because the Quarry Creek Master Plan EIR has not been made available for public review, this project is addressed in this EIR. However, if the Quarry Creek Master Plan EIR is not ultimately approved and developed, this CIP project would not be implemented.
ES7	Recycled Water CIP Project ES7 would require construction of recycled water pipelines within areas that are currently undeveloped, but planned for future public roadways. Based on the current existing conditions, the CIP project would require construction within an undeveloped area that could support sensitive natural communities. Potential direct and indirect impacts could occur to sensitive natural communities during project construction. Recycled Water CIP Project ES7 is currently being analyzed in a separate CEQA document for the Quarry Creek Master Plan EIR (EIR 11-02). Because the Quarry Creek Master Plan EIR has not been made available for public review, this project is addressed in this EIR. However, if the Quarry Creek Master Plan EIR is not ultimately approved and developed, this CIP project would not be implemented.

**Table 4.3-6 CIP Projects Where Indirect Impacts to Riparian Habitat and/or Other Sensitive Natural Communities are Minimized Through Implementation of BMPs**

Master Plan	Rationale for Determination
<b>Sewer CIP Projects</b>	
SR-11	Sewer CIP Project SR-11 would be located within disturbed and developed land that occurs adjacent to an undeveloped area that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.
SR-12	Sewer CIP Project SR-12 would require the relocation of an existing sewer line adjacent to Agua Hedionda Lagoon and adjacent to an undeveloped area that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.
SR-15	Sewer CIP Project SR-15 would be located within disturbed and developed land that occurs adjacent to an undeveloped area that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.
<b>Water CIP Projects</b>	
48	Water CIP Project 48 would require replacement or rehabilitation of water pipelines within an existing disturbed, dirt access road located within undeveloped land in the Calavera Hills area. Construction activities would occur adjacent to an undeveloped area that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.
<b>Recycled Water CIP Projects</b>	
ES1	Recycled Water CIP Expansion Segment 1 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.

**Table 4.3-6 CIP Projects Where Indirect Impacts to Riparian Habitat and/or Other Sensitive Natural Communities are Minimized Through Implementation of BMPs (continued)**

Master Plan	Rationale for Determination
ES2	Recycled Water CIP Expansion Segment 2 would require construction of recycled water pipeline within developed areas, portions of which require suspension of a pipeline from an existing bridge adjacent to an undeveloped area associated with Agua Hedionda Lagoon that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.
ES5	Recycled Water CIP Expansion Segment 5 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area associated with Agua Hedionda Lagoon that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.
ES8	Recycled Water CIP Expansion Segment 8 would require construction of recycled water pipeline within developed areas, portions of which require suspension of a pipeline from an existing bridge adjacent to an undeveloped area associated with Batiquitos Lagoon that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.
ES9	Recycled Water CIP Expansion Segment 9 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.
ES11	Recycled Water CIP Expansion Segment 11 would require construction of recycled water pipeline within developed areas, portions of which require suspension of a pipeline from an existing bridge adjacent to an undeveloped area associated with Agua Hedionda Lagoon that could support sensitive natural communities. Potential indirect impacts pertaining to construction runoff and other activities could occur to sensitive natural communities during project construction.

As discussed above in Section 4.3.5.2 (Issue 1), with the exception of a single CIP project, Water CIP Project 47, all of the projects listed within Table 4.3-5 would occur within Carlsbad. As such, these projects would be subject to the provisions of the adopted Carlsbad HMP and associated habitat avoidance, minimization, and compensatory mitigation requirements. The City and CMWD are required to compensate impacts to CIP project that occur in Carlsbad according to the HMP mitigation ratios for Habitat Groups A, B, C, D, E, and F, as specified in Table 11 and Section D.6 of the Carlsbad HMP, and proposed below within mitigation measure Bio-2A. Implementation of mitigation measure Bio-2A would reduce direct impacts on riparian habitat and other sensitive natural communities associated with CIP projects located in Carlsbad to a less than significant level.

Water CIP Project 47 occurs within San Marcos, and as such, would not be subject to the provisions of the Carlsbad HMP that address natural habitat impacts. Based on a programmatic assessment, portions of Water CIP Project 47 could occur within Diegan coastal sage scrub, a sensitive upland habitat type. Water CIP Project 47 would be required to mitigate the loss of Diegan coastal sage scrub through the implementation of general habitat-based compensatory measures in accordance with CEQA guidelines, which could include on- and/or off-site preservation, creation, restoration and/or enhancement of the habitat at standard mitigation ratios, as specified below within mitigation measure Bio-2B. Implementation of mitigation measure Bio-2B would reduce direct impacts on Diegan coastal sage scrub associated with CIP project 47 to a less than significant level.

### Indirect Impacts

Potential short-term, construction-related indirect impacts could result from construction of CIP projects listed above in Table 4.3-6 that occur adjacent to riparian habitat and sensitive natural communities. Potential indirect impacts could include those resulting from inadvertent storm water runoff from

construction sites, fugitive dust, and staging areas. These indirect impacts would be considered significant.

As described within Section 2.6 (Construction Methods) of this EIR, potential short-term indirect impacts during construction would be minimized through CIP project design features and standard construction methods and practices that are required to comply with existing regulations. The City and CMWD are required to prepare and implement prevention plans and BMPs to minimize, control, and treat storm water runoff, fugitive dust, and other pollutants at the CIP construction site. Implementation of these required practices would reduce potential indirect impacts during construction to a less than significant level. Further, implementation of mitigation measures Bio-1E, Bio-1F, Bio-1H, and Bio-1I would ensure that construction activities do not inadvertently encroach into or otherwise impact sensitive natural communities occurring adjacent to CIP project sites, thereby further reducing potential indirect impacts to a less than significant level.

## Mitigation Measures

Implementation of the following mitigation measures would reduce direct impacts to riparian habitat and other sensitive natural communities to a less than significant level.

**Bio-2A Habitat Compensation for Projects within Carlsbad.** If it is demonstrated through the implementation of mitigation measure Bio-1A that CIP projects N-3, N-9, SR-3, SR-9, SR-17, SR-19, SR-22, SR-23, 10, 17, 55, or ES7 could directly impact sensitive natural communities, including Habitat Groups A, B, C, D, E, and F specified in Table 11 and Section D.6 of the Carlsbad HMP, the City and CMWD shall implement the following:

1. Mitigation for unavoidable impacts to Habitat Groups A, B, C, D, E, and F shall be provided according to the ratios specified below and consistent with Table 11 and Section D.6 of the Carlsbad HMP:

HMP Habitat Mitigation Ratios	
Habitat Group and Type	Mitigation Ratio
A. Coastal salt marsh, alkali marsh, freshwater marsh, estuarine, salt pan/ mudflats, riparian forest, riparian woodland, riparian scrub, vernal pools, disturbed wetlands, flood channel, Engelmann oak woodland, coast live oak woodland	No net loss; mitigation varies by type of replacement habitat
B. Beach, southern coastal bluff scrub, maritime succulent scrub, southern maritime chaparral, native grassland	3:1
C. Coastal sage scrub occupied by coastal California gnatcatcher	2:1
D. Coastal sage scrub unoccupied by coastal California gnatcatcher, coastal sage/chaparral mix, chaparral (excluding southern maritime chaparral)	1:1
E. Non-native grassland	0.5:1
F. Disturbed lands, eucalyptus woodland, agriculture	0.01:1

2. Impacts to Habitat Groups D, E, and F shall be mitigated at the Lake Calavera City Mitigation Bank in accordance with Appendix B of the Carlsbad HMP for covered City projects that are eligible to mitigate impacts at the Lake Calavera City Mitigation Bank.
3. Impacts to Habitat Groups A, B, and C shall be avoided to the maximum extent practicable through project-level siting during CIP project design and trenchless pipeline

installation methods (e.g., jack and bore, horizontal directional drilling) during CIP project construction.

4. Unavoidable impacts to Habitat Groups A, B, and C shall be mitigated in-kind through implementation of any one or combination of the following measures, as approved and/or amended by the USFWS, USACE, RWQCB, and/or CDFG, if applicable:
  - a. On site as creation of new habitat within avoided and preserved areas at the CIP project site;
  - b. On site as restoration of existing habitat within temporary impact areas and/or avoided and preserved areas at the CIP project site;
  - c. On site as enhancement of existing habitat within avoided and preserved areas at the CIP project site;
  - d. Off site as purchase of habitat credits within an approved mitigation bank(s) (e.g., Carlsbad Oaks Conservation Bank, North County Habitat Bank);
  - e. Off site as habitat preservation, creation, restoration, and/or enhancement within other properties or approved mitigation programs available at the time of grading; or
  - f. A combination of the above.
  - g. In the Coastal Zone, impacts to Habitat Groups A, B, and C shall be mitigated in accordance with the ratios described in Section D.7 of the HMP and shall include at a minimum a 1:1 creation (or substantial restoration when allowed) component to ensure no net loss of habitat. The remainder of the mitigation obligation may be satisfied pursuant to the provisions of the HMP. The proposed mitigation for impacts to Habitat Groups A, B, and C in the coastal zone is subject to review by the California Coastal Commission.
5. On- or off-site creation, restoration, and/or enhancement mitigation for habitat groups A, B, and C shall consist of the following:
  - a. For Habitat Group A types, including riparian and wetland sensitive natural communities (e.g., riparian forest, riparian woodland, riparian scrub, disturbed wetlands, coast live oak woodland), the City or CMWD shall prepare a Riparian/Wetland Habitat Restoration Plan detailing the specific riparian/wetland creation, restoration, and/or enhancement measures to be implemented as project mitigation. The Riparian/Wetland Habitat Restoration Plan shall be approved by the USFWS, USACE, RWQCB, and/or CDFG, as appropriate, prior to vegetation clearing, grading, and/or construction activities.
  - b. For Habitat Group B types, including upland sensitive natural communities (e.g., maritime succulent scrub, southern maritime chaparral, native grassland), the City or CMWD shall prepare an Upland Habitat Restoration Plan detailing the specific upland habitat creation, restoration, and/or enhancement measures to be implemented as project mitigation. The Upland Habitat Restoration Plan shall be approved by the USFWS and CDFG prior to vegetation clearing, grading, and/or construction activities.

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- c. For Habitat Group C types (occupied Coastal Sage Scrub), the City or CMWD shall prepare a Coastal Sage Scrub Habitat Restoration Plan detailing the specific coastal sage scrub habitat creation, restoration, and/or enhancement measures to be implemented as project mitigation. The Coastal Sage Scrub Habitat Restoration Plan shall be approved by the USFWS and CDFG prior to vegetation clearing, grading, and/or construction activities.
- d. The restoration plans for Habitat Groups A, B, and C shall include a five-year maintenance and monitoring program with a requirement to meet City/Wildlife Agencies approved success criteria.
6. Any upland or riparian/wetland habitat impacts that occur beyond the approved work limits of any CIP project shall be mitigated at a higher ratio to be negotiated with the USFWS, USACE, RWQCB, and/or CDFG.
7. If the Quarry Creek Master Plan project covering CIP projects N-9, 55, and ES7 is ultimately approved and developed, the City and CMWD shall implement the specific mitigation requirements of the Quarry Creek Master Plan EIR (EIR 11-02) accordingly.

**Bio-2B**     **Habitat Compensation for Projects Outside of Carlsbad.** If it is demonstrated through the implementation of mitigation measure Bio-1A that CIP project 47 could directly impact sensitive natural communities, namely Diegan coastal sage scrub, CMWD shall compensate the loss of habitat according to the ratios provided below, which would be increased or decreased depending on where the compensatory mitigation would be located and whether the impacted habitat supports special status species or other sensitive resources:

<u>Sensitive Natural Community</u>	<u>Mitigation Ratio</u>
Diegan coastal sage scrub	1:1 – 2:1

CMWD shall mitigate impacts to Diegan coastal sage scrub in accordance with the compensatory requirements outlined for Habitat Group C within measures 4, 5, 6, and 7 of mitigation measure Bio-2A.

### Significance After Mitigation

Impacts related to riparian habitat and other sensitive natural communities would be reduced to a less than significant level with implementation of mitigation measures Bio-1B, Bio-1E, Bio-1F, Bio-1H, Bio-1I, Bio-2A, and Bio-2B.

### 4.3.5.5 Issue 3 – Wetlands

#### Biological Resources Issue 3 Summary

**Would implementation of the Sewer, Water, and Recycled Water Master Plans have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act?**

**Impact:** Implementation of Master Plans could result in impacts to waters, wetlands, and associated resources subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Game, including federally protected wetlands as defined by Section 404 of the Clean Water Act.

**Mitigation:** HMP Covered Species Surveys and Habitat Mitigation (Bio-1B); Pre-Construction Biological Resource Surveys (Bio-1E); Orange Construction Fencing (Bio-1F); Construction Staging Areas (Bio-1H); Contractor Training (Bio-1I); and Habitat Compensation for Projects within Carlsbad (Bio-2A).

**Significance Before Mitigation:** Potentially significant.

**Significance After Mitigation:** Less than significant.

### Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the Master Plans would have a significant impact if it would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

### Impact Analysis

Based on a programmatic assessment, the CIP projects listed below within Table 4.3-7 and Table 4.3-8 could occur on or in the immediate vicinity of areas potentially containing wetlands or other jurisdictional resources regulated by the USACE, RWQCB, and/or CDFG. Therefore, these projects could result in potential significant impacts to wetlands or other jurisdictional resources.

#### Direct Impacts

Direct impacts include those that pertain to the direct fill, dredge, or discharge into jurisdictional waters and wetlands through activities such as clearing, grubbing, grading, and other land disturbance activities; construction access and staging; and, removal and replacement of existing facilities. Direct impacts are considered significant. As evaluated above for this programmatic analysis, construction of the CIP projects listed in Table 4.3-7 would have the potential to result in direct impacts to riparian and wetland habitat types that could support jurisdictional waters and wetlands. All of these CIP projects are located within Carlsbad. Activities associated with construction of these CIP projects could be subject to the regulatory jurisdiction of the USACE, RWQCB, and/or CDFG. For example, some of the CIP projects involve pipelines or access roads that may require the crossing of drainage features or temporary construction activities within areas potentially supporting jurisdictional waters and wetlands. As discussed throughout this section and proposed within mitigation measures Bio-1B and Bio-2A, impacts to sensitive areas potentially supporting wetland habitats shall be avoided to the maximum extent practicable through project-level siting during CIP project design and trenchless pipeline installation methods (e.g., jack and bore, horizontal directional drilling) during CIP project construction.

**Table 4.3-7 CIP Projects with Potential to Result in Significant Direct Impacts to Wetlands**

<b>Master Plan</b>	<b>Rationale for Determination</b>
<b>Sewer CIP Projects</b>	
N-3	Sewer CIP Project N-3 would require construction of sewer pipelines within areas that are currently undeveloped, but planned for future public roadways associated with the Mandana property. The CIP project will be restricted to areas outside of Existing Hardline Conservation Areas for the Carlsbad HMP; however, could result in direct and indirect impacts to wetlands associated with Agua Hedionda Creek and unnamed tributaries.
N-9	Sewer CIP Project N-9 would require construction of sewer pipelines within areas that are currently undeveloped, but planned for future public roadways. Based on the current existing conditions, the CIP project would require construction within an undeveloped area associated with Quarry Creek that could support wetlands. Potential direct and indirect impacts could occur to wetlands during project construction. Sewer CIP Project N-9 is currently being analyzed in a separate CEQA document for the Quarry Creek Master Plan EIR (EIR 11-02). Because the Quarry Creek Master Plan EIR has not been made available for public review, this project is addressed in this EIR. However, if the Quarry Creek Master Plan EIR is not ultimately approved and developed, this CIP project would not be implemented.
SR-9	Sewer CIP Project SR-9 would require refurbishment and/or replacement activities at existing sewer lines and manholes at locations throughout the sewer service area that are not determined at this time. This evaluation assumes that the activities could occur within wetlands. Potential direct and indirect impacts could occur to wetlands during project construction.
SR-19	Sewer CIP Project SR-19 would require construction of an access road to accommodate maintenance access and provide a public trail adjacent to Batiquitos Lagoon and within an undeveloped area that could support wetlands. Potential direct and indirect impacts could occur to wetlands during project construction.
SR-22	Sewer CIP Project SR-22 would require construction of access roads to accommodate access for maintenance and assessment at existing manholes throughout the sewer service area. A number of planned access road alignments associated with SR-22 occur within an undeveloped area that could support wetlands. Potential direct and indirect impacts to wetlands could occur during project construction.
SR-23	Sewer CIP Project SR-23 would require construction of access roads, pipeline relocation, and/or pipeline realignment along an existing sewer alignment adjacent to Encinas Creek. Portions of CIP Project SR-23 occur within an undeveloped area that could support wetlands. Potential direct and indirect impacts could occur to wetlands during project construction.
<b>Water CIP Projects</b>	
10, 17	Water CIP Projects 10 and 17 would require construction of water pipelines within areas that are currently undeveloped, but planned for future public roadways. The projects would occur within areas that are currently characterized by undeveloped areas that could support wetlands associated with unnamed tributaries to Agua Hedionda Creek and Batiquitos Lagoon. Potential direct and indirect impacts could occur to wetlands during project construction.
55	Water CIP Project 55 would require construction of water pipelines within areas that are currently undeveloped, but planned for future public roadways. Based on the current existing conditions, the CIP project would require construction within an undeveloped area associated with Quarry Creek that could support wetlands. Potential direct and indirect impacts could occur to wetlands during project construction. Water CIP Project 55 is currently being analyzed in a separate CEQA document for the Quarry Creek Master Plan EIR (EIR 11-02). Because the Quarry Creek Master Plan EIR has not been made available for public review, this project is addressed in this EIR. However, if the Quarry Creek Master Plan EIR is not ultimately approved and developed, this CIP project would not be implemented.
<b>Recycled Water CIP Projects</b>	
ES7	Recycled Water CIP Project ES7 would require construction of recycled water pipelines within areas that are currently undeveloped, but planned for future public roadways. Based on the current existing conditions, the CIP project would require construction within an undeveloped area associated with Quarry Creek that could support wetlands. Potential direct and indirect impacts could occur to wetlands during project construction. Recycled Water CIP Project ES7 is currently being analyzed in a separate CEQA document for the Quarry Creek Master Plan EIR (EIR 11-02). Because the Quarry Creek Master Plan EIR has not been made available for public review, this project is addressed in this EIR. However, if the Quarry Creek Master Plan EIR is not ultimately approved and developed, this CIP project would not be implemented.

**Table 4.3-8 CIP Projects Where Indirect Impacts to Wetlands are Minimized Through Implementation of BMPs**

Master Plan	Rationale for Determination
<b>Sewer CIP Projects</b>	
SR-12	Sewer CIP Project SR-12 would require the relocation of an existing sewer line adjacent to Agua Hedionda Lagoon and adjacent to an undeveloped area that could support wetlands. Potential indirect impacts pertaining to construction runoff and other activities could occur to wetlands during project construction.
<b>Water CIP Projects</b>	
48	Water CIP Project 48 would require replacement or rehabilitation of water pipelines within an existing disturbed, dirt access road located within undeveloped land in the Calavera Hills area. Construction activities could occur adjacent to wetlands associated with an unnamed tributary to Agua Hedionda Creek that discharges from Lake Calaveras. Potential indirect impacts pertaining to construction runoff and other activities could occur to wetlands during project construction.
<b>Recycled Water CIP Projects</b>	
ES1	Recycled Water CIP Expansion Segment 1 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area that could support wetlands. Potential indirect impacts pertaining to construction runoff and other activities could occur to wetlands during project construction.
ES2	Recycled Water CIP Expansion Segment 2 would require construction of recycled water pipeline within developed areas, portions of which require suspension of a pipeline from an existing bridge adjacent to wetlands associated with Agua Hedionda Lagoon. Potential indirect impacts pertaining to construction runoff and other activities could occur to wetlands during project construction.
ES5	Recycled Water CIP Expansion Segment 5 would require construction of recycled water pipeline within developed areas, portions of which occur adjacent to an undeveloped area associated with Agua Hedionda Lagoon that could support wetlands. Potential indirect impacts pertaining to construction runoff and other activities could occur to wetlands during project construction.
ES8	Recycled Water CIP Expansion Segment 8 would require construction of recycled water pipeline within developed areas, portions of which require suspension of a pipeline from an existing bridge adjacent to wetlands associated with Batiquitos Lagoon. Potential indirect impacts pertaining to construction runoff and other activities could occur to wetlands during project construction.
ES11	Recycled Water CIP Expansion Segment 11 would require construction of recycled water pipeline within developed areas, portions of which require suspension of a pipeline from an existing bridge adjacent to wetlands associated with Agua Hedionda Lagoon. Potential indirect impacts pertaining to construction runoff and other activities could occur to wetlands during project construction.

Further, and as proposed within mitigation measure Bio-1A, CIP projects listed in Table 4.3-7 would require project-level biological studies to verify the presence or absence of potential jurisdictional resources and determine whether or not the CIP project could be constructed to avoid potential jurisdictional resources. To the extent possible, the City and CMWD would avoid all potential jurisdictional resources through modifications to CIP project design, trenchless construction methods, or other avoidance measures determined during project-level analyses.

As stated in Section 2.6 (Construction Methods) of this EIR, for CIP projects that have been identified as potentially occurring within federally protected wetlands or other areas subject to the regulatory jurisdiction of the USACE, RWQCB, and/or CDFG, the City and CMWD would retain a qualified biologist to perform biological surveys and formal jurisdictional wetland delineation studies as part of subsequent project-level CEQA documents prepared for these projects. Where it has been confirmed through wetland delineation studies that potential jurisdictional waters and wetlands would be impacted by the project, the City and CMWD are required to comply with Section 404 and Section 401 of the CWA, and

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Section 1600 *et seq.* of CFG Code through preparation and submittal of the necessary permit notifications to the USACE, RWQCB, and CDFG. The City and CMWD are required to obtain all regulatory permits prior to construction of CIP projects. In accordance with permit requirements and in compensating any unavoidable loss of jurisdictional waters and wetlands, the City and CMWD shall implement the riparian and wetland habitat avoidance and compensation measures proposed within mitigation measure Bio-1B and Bio-2A, which include measures for fully mitigating impacts to Habitat Group A jurisdictional resources in Carlsbad. Implementation of these measures would reduce potential unavoidable direct impacts on jurisdictional waters and wetlands to less than significant levels.

##### **Indirect Impacts**

Potential short-term, construction-related indirect impacts could result from construction of the CIP projects listed above in Table 4.3-8 that occur adjacent to potential jurisdictional waters and wetlands. Potential indirect impacts could include those resulting from inadvertent storm water runoff from construction sites and staging areas. These indirect impacts would be considered significant.

As described within Section 2.6 (Construction Methods) of this EIR, potential short-term indirect impacts during construction would be minimized through CIP project design features and standard construction methods and practices that are required to comply with existing regulations. The City and CMWD are required to prepare and implement prevention plans and BMPs to minimize, control, and treat storm water runoff, fugitive dust, and other pollutants at the CIP construction site. Implementation of these required practices would reduce potential indirect impacts during construction to a less than significant level. Further, implementation of mitigation measures Bio-1E, Bio-1F, Bio-1H, and Bio-1I would ensure that construction activities do not inadvertently encroach into or otherwise impact potential jurisdictional waters and wetlands occurring adjacent to CIP project sites, thereby further reducing potential indirect impacts to a less than significant level.

##### **Mitigation Measures**

Potential impacts to jurisdictional waters and wetlands would be considered less than significant with the preparation of project-level wetland delineation studies; fulfillment of notification and permitting requirements from the USACE, RWQCB, and CDFG; and, implementation of mitigation measures Bio-1B, Bio-1E, Bio-1F, Bio-1H, Bio-1I, and Bio-2B. No additional mitigation is required.

##### **Significance After Mitigation**

Impacts on jurisdictional waters and wetlands would be reduced to a less than significant level with implementation of mitigation measures Bio-1B, Bio-1E, Bio-1F, Bio-1H, Bio-1I, and Bio-2B.

### 4.3.5.6 Issue 4 —Wildlife Corridors

#### Biological Resources Issue 4 Summary

**Would implementation of the Sewer, Water, and Recycled Water Master Plans interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident migratory corridors?**

**Impact:** Implementation of the Master Plans would not result in adverse effects to wildlife corridors.

**Mitigation:** No mitigation is required.

**Significance Before Mitigation:** Less than significant.

**Significance After Mitigation:** Impacts would be less than significant without mitigation.

### Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the Master Plans would have a significant impact if it would interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident migratory corridors.

### Impact Analysis

Although several of the proposed CIP projects would occur within and/or in the immediate vicinity of regional corridors and linkages identified under the Carlsbad HMP, none of the proposed projects are anticipated to adversely affect, either directly or indirectly, the continued function of the areas in facilitating wildlife movement through the local and regional area. The majority of the CIP projects are proposed within disturbed and developed land that contains existing developments. The proposed reservoir and pump station projects would occur within developed land associated with existing water district facilities, or within small isolated areas, on hilltop features, surrounded by expansive, undeveloped land. The proposed reservoir impact footprints would be limited in overall space, and confined, such that wildlife could continue to move through the local area and around the proposed developments. The majority of the proposed pump station projects would occur within disturbed land, and all are associated with very small impact footprints. Due to the small size and limited above-ground developments proposed for pump stations, no adverse effects toward wildlife movement are anticipated to occur. Potential impacts associated with the proposed pipeline projects would be temporary, and all pipelines developments would be placed beneath the ground such that there would be no above-ground hindrances to wildlife movement during project operation. Therefore, the proposed pipeline projects are not anticipated to have any adverse direct or indirect effects toward wildlife movement. In conclusion, potential impacts to wildlife movement and nursery sites resulting from the proposed Master Plans would be less than significant without mitigation.

### Mitigation Measures

Impacts related to wildlife movement and nursery sites would be less than significant. No mitigation is required.

## Significance After Mitigation

Impacts related to wildlife movement and nursery sites would be less than significant without mitigation.

### 4.3.5.7 Issue 5 — Local Policies or Ordinances

#### Biological Resources Issue 5 Summary

**Would implementation of the Sewer, Water, and Recycled Water Master Plans conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**Impact:** Implementation of the Master Plans would not conflict with the City of Carlsbad Habitat Preservation and Management Requirements (HPMR) Ordinance or Coastal Resource Protection Overlay Zone (CRPOZ) Ordinance.

**Mitigation:** No mitigation required.

**Significance Before Mitigation:** Less than significant.

**Significance After Mitigation:** Impacts are less than significant without mitigation.

## Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the Master Plans would have a significant adverse impact if they would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

## Impact Analysis

### Chapter 21.203 – Coastal Resource Protection Overlay Zone (CRPOZ) Ordinance

Based on a programmatic assessment, the CIP projects listed below within Table 4.3-9 occur within the boundaries of the coastal zone in Carlsbad, as identified within the approved Carlsbad LCP, and could occur on and/or in the immediate vicinity of coastal stream, riparian, and wetland ESHA. Table 4.3-9 also identifies which CIP projects are located within the Agua Hedionda Lagoon segment of the Carlsbad LCP, which is a deferred certification area whereby CDPs are issued by the CCC as opposed to the City. Potential direct impacts include disturbance and loss of habitat within areas designated as ESHA through activities such as clearing, grubbing, grading, and other land disturbance activities; construction access and staging; and, removal and replacement of existing facilities. Potential short-term indirect impacts to ESHA resources during construction could include those resulting from storm water runoff from construction sites and staging areas. The projects listed in Table 4.3-9 could result in direct and/or indirect impacts on ESHA resources in the coastal zone.

**Table 4.3-9 CIP Projects with Potential to Result in Significant Impacts to Coastal Zone ESHA**

<b>CIP Projects</b>	<b>Rationale for Determination</b>
<b>Sewer</b>	
SR-19	Sewer CIP Project SR-19 could occur within coastal salt marsh habitat that could support wetland ESHA.
SR-22	Sewer CIP Project SR-22 would require construction of access roads to accommodate access for maintenance and assessment at existing manholes throughout the sewer, water, and recycled water areas. A number of planned access road alignments associated with SR-22 occur within a variety of riparian and wetland habitats that could support coastal stream, riparian, and wetland ESHA. One segment of this CIP project is located within the deferred certification area for the Agua Hedionda Lagoon segment of the Carlsbad LCP.
SR-23	Sewer CIP Project SR-23 could occur within southern riparian scrub, southern riparian woodland, and southern riparian forest habitats that could support coastal stream and riparian ESHA.
<b>Water</b>	
17	Water CIP Project 17 could occur within southern riparian scrub, southern riparian woodland, southern riparian forest, coastal freshwater marsh, and cismontane alkali marsh, which could qualify as coastal stream, riparian, and wetland ESHA.

Coastal zone resources that occur within the sewer, water, and recycled water areas generally include coastal stream, riparian, and wetland ESHA associated with Agua Hedionda Lagoon, Agua Hedionda Creek, Batiquitos Lagoon, Buena Vista Lagoon, Buena Vista Creek, and Encinas Creek. Temporary impacts as a result of sewer and water CIP project construction may occur to ESHA within these areas. In conformance with the LCP, the City of Carlsbad regulates developments within the coastal zone, including pipelines, according to the CRPOZ Ordinance. CIP projects would be subject to the Carlsbad LCP and Development Standards in Section 21.203.040 of the CRPOZ, and therefore, could require a CDP from the City. As indicated in Table 4.3-9 above, one segment of Sewer CIP Project SR-22 is located within the deferred certification area for the Agua Hedionda Lagoon segment of the Carlsbad LCP, and therefore would require a CDP from the CCC. Further, CIP projects determined to have the potential to impact ESHA would be required to adhere to the additional conservation standards included in Section D.7 of the Carlsbad HMP, which are applied to all properties located within the coastal zone of Carlsbad.

The City and CMWD are required to comply with the Carlsbad HMP and provisions of the Carlsbad LCP, including the CRPOZ Ordinance. Individual CIP projects requiring approvals or permitting (e.g., CDP or HMP Permit) from the Carlsbad Planning Division will be required to incorporate project-level avoidance and minimization measures into the CIP project description to be consistent with the conditions of the CRPOZ Ordinance. As required, potential impacts on sensitive species and habitats will be avoided or mitigated consistent with the CRPOZ Ordinance and HMP. Implementation of the proposed Master Plans would therefore not conflict with the adopted CRPOZ Ordinance and Carlsbad HMP and impacts would be less than significant.

#### **Chapter 21.210 - Habitat Preservation and Management Requirements (HPMR) Ordinance**

As evaluated above in Section 4.3.5.2 (Issue 1) and Section 4.3.5.3 (Issue 2), CIP projects located within Carlsbad are subject to the requirements of the Carlsbad HMP and provisions of the Carlsbad Municipal Code, including the HPMR Ordinance. The HPMR requires all development to comply with the Carlsbad HMP as well as the Implementing Agreement, the MHCP, the NCCP and 10(a)(1)(B) permit conditions. Construction of CIP projects would not be permitted to occur in Carlsbad until all processing and permitting requirements of the HPMR Ordinance are fulfilled. As required, potential impacts on

#### 4.3 BIOLOGICAL RESOURCES

sensitive species and habitats will be avoided or mitigated consistent with the HPMR Ordinance and HMP. Implementation of the proposed Master Plans would therefore not conflict with the adopted HPMR Ordinance and impacts would be less than significant.

### Mitigation Measures

The project would not conflict with the CRPOZ or HPMR Ordinances. No mitigation is required.

### Significance After Mitigation

Impacts related to local policies and ordinances would be less than significant without mitigation.

#### 4.3.5.8 Issue 6 — Habitat Conservation Plans

##### Biological Resources Issue 6 Summary

**Would implementation of the Sewer, Water, and Recycled Water Master Plans conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional or state habitat conservation plan?**

**Impact:** Implementation of the Sewer, Water, and Recycled Water Master Plans would not conflict with the Carlsbad HMP.

**Mitigation:** No mitigation is required.

**Significance Before Mitigation:** Less than significant.

**Significance After Mitigation:** Impacts are less than significant without mitigation.

### Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the Master Plans would have a significant adverse impact if it would conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional or state habitat conservation plan.

### Impact Analysis

#### Draft MHCP Subarea Plans

Portions of the Master Plans occur within the Cities of San Marcos, Vista, and Oceanside. Draft Subarea Plans under the MHCP have been prepared for San Marcos and Oceanside; however, these Draft MHCP Subarea Plans have not yet been finalized or adopted. Therefore, projects are not required to demonstrate consistency and compliance with these Draft MHCP Subarea Plans. To demonstrate voluntary compliance with the Draft MHCP Subarea Plans, the City and CMWD may address the proposed requirements during the design phase of individual CIP projects, and in consultation with the USFWS, CDFG, and local city jurisdiction. No further analysis is required.

#### Carlsbad HMP

As evaluated above in Section 4.3.5.2 (Issue 1), Section 4.3.5.3 (Issue 2), and Section 4.3.5.6 (Issue 5), there are CIP projects identified within the Master Plans within Carlsbad that could result in potential impacts to sensitive species and habitat that are addressed within the Carlsbad HMP. The City and

CMWD are required to comply with the Carlsbad HMP and provisions of the Carlsbad Municipal Code, including the HPMR Ordinance. Individual CIP projects requiring approvals or permitting (e.g., HMP Permit) from the Carlsbad Planning Division will be required to incorporate project-level avoidance and minimization measures into the CIP project description to be consistent with the conditions of the Carlsbad HMP. In addition, individual CIP projects will be required to implement project-specific procedures, protocols, and mitigation measures described in the Carlsbad HMP if sensitive species and habitat could be adversely affected by the project. As required, potential impacts on sensitive species and habitats will be avoided or mitigated consistent with the Carlsbad HMP requirements. Implementation of the proposed Master Plans would therefore not conflict with the adopted Carlsbad HMP and impacts would be less than significant.

## Mitigation Measures

The project would not conflict with the Carlsbad HMP. No mitigation is required.

## Significance After Mitigation

The project would not conflict with the Carlsbad HMP and there would be no impacts.

### 4.3.6 Cumulative Impacts

#### Biological Resources Cumulative Issue Summary

**Would implementation of the Sewer, Water, and Recycled Water Master Plans have a cumulatively considerable contribution to a cumulative Biological Resources impact considering past, present, and probable future projects?**

Cumulative Impact	Significant?	Project Contribution
Candidate, Sensitive, or Special Status Species	Yes	Not cumulatively considerable.
Riparian Habitat and Sensitive Natural Communities	Yes	Not cumulatively considerable.
Wetlands	Yes	Not cumulatively considerable.
Wildlife Corridors	Yes	Not cumulatively considerable.
Local Policies and Ordinances	Yes	Not cumulatively considerable.
Habitat Conservation Plans	Yes	Not cumulatively considerable.

The geographic scope of cumulative impact analysis for biological resources includes the sewer, water, and recycled water areas, which encompasses a large region of Northern San Diego County and represents a wide variety of habitat types and sensitive biological resources, including a comprehensive list of species of regional concern. With the exception of a single project, all CIP projects potentially affecting biological resources occur within Carlsbad; therefore, an appropriate geographic scope for the cumulative impact analysis would encompass areas contained within the planning boundaries for the Carlsbad HMP. For federally listed species whose critical habitat occurs within the CMWD service area (e.g., coastal California gnatcatcher), the geographic scope would include all contiguous critical habitat units that extend beyond the boundaries of the city.

The cumulative projects listed in Table 4.0-1 of this EIR would have the potential to contribute to cumulative direct and indirect impacts to sensitive species and natural communities, including wetlands. Sensitive species are designated as such due to their scarcity (e.g., threatened and endangered) throughout their habitat ranges. Similarly, sensitive natural communities, including wetlands, are considered sensitive based on their regional distribution within the bioregion and watershed areas. Therefore, the baseline cumulative impact to sensitive biological resources within and adjacent to the sewer, water, and recycled water areas (i.e., regional cumulative impact area) is significant.

Since the adoption of the Carlsbad HMP, project-level and cumulative impacts for development projects within the city have been mitigated to levels of less than significant. One of the many benefits of a regional habitat conservation plan, such as the Carlsbad HMP, is that the cumulative effects of growth are mitigated by establishing a process that preserves the most important biological resources in the region. Since its adoption, implementation of the Carlsbad HMP has resulted in the conservation and preservation of lands supporting the highest quality and value habitat within the city. These preserve lands support special status species, sensitive natural communities, wetlands, and other regionally important biological resources. The preservation of this habitat has allowed for development within the city to occur without contributing substantially to a cumulative impact. The Master Plans' potential contribution toward the cumulative impact is discussed in further detail below.

#### **4.3.6.1 Issue 1 – Candidate, Sensitive, or Special Status Species**

As discussed above within Section 4.3.5.2 (Issue 1), construction of some CIP projects under the Master Plans would have the potential to directly and indirectly impact special status plant and wildlife species and their habitats, including USFWS-designated Critical Habitat. The magnitude of potential impacts is anticipated to be relatively low due to the small size of the CIP projects and temporary nature of proposed activities. The likelihood of direct impacts to special status species is low. In the event that sensitive species would occur on or in the immediate vicinity of proposed CIP project sites, they would be avoided to the maximum extent feasible through project siting and design. For CIP projects within the boundaries of the Carlsbad HMP (i.e., within Carlsbad), the City and CMWD would adhere to the provisions of the HPMR Ordinance and Carlsbad HMP requirements, which would ensure that the appropriate project-level studies are prepared, appropriate agency approvals and permits (e.g., HMP Permit) are obtained, and specific avoidance, minimization, and compensatory mitigation measures are incorporated into the project. For CIP projects located outside of the boundaries of the Carlsbad HMP, the City and CMWD would be required to consult with, and obtain permits from, the USFWS and/or CDFG, and implement avoidance measures preventing potential “take” of any individual species and impacts to USFWS-designated Critical Habitat. The City and CMWD would compensate the loss of habitat through creation, restoration, and/or enhancement measures. Through consistency with the Carlsbad HMP and implementation of mitigation measures Bio-1A through Bio-1I, development of CIP projects under the Master Plans would not result in a cumulatively considerable contribution toward impacts on special status species within the regional cumulative impact area.

#### **4.3.6.2 Issue 2 – Riparian Habitat and Sensitive Natural Communities**

As discussed above within Section 4.3.5.3 (Issue 2), a number of CIP projects would have the potential to directly and indirectly impact upland, riparian, and wetland sensitive natural communities. The magnitude of potential impacts is anticipated to be relatively low due to the small size of the CIP projects and temporary nature of proposed activities. Sensitive natural communities would be avoided and setback to the maximum extent feasible through project siting and design. The City and CMWD

would compensate the loss of sensitive natural communities through creation, restoration, and/or enhancement measures at superior replacement ratios. Where creation, restoration, and/or enhancement measures would be implemented at off-site locations, they would occur within the watershed and regional cumulative impact area to the extent possible. Therefore, with implementation of mitigation measures Bio-1B, Bio-1E, Bio-1F, Bio-1H, Bio-1I, Bio-2A, and Bio-2B, development of CIP projects under the Master Plans would not result in a cumulatively considerable contribution toward impacts on sensitive natural communities within the regional cumulative impact area.

#### **4.3.6.3 Issue 3 – Wetlands**

As discussed above within Section 4.3.5.4 (Issue 3), several CIP projects would have the potential to directly and indirectly impact wetlands. The magnitude of potential impacts is anticipated to be relatively low due to the small size of the CIP projects and temporary nature of proposed activities. Wetlands would be avoided and setback to the maximum extent feasible through project siting and design. As discussed above for sensitive natural communities, the City and CMWD would compensate the loss of wetlands through creation, restoration, and/or enhancement measures at superior replacement ratios. Where creation, restoration, and/or enhancement measures would be implemented at off-site locations, they would occur within the watershed and regional cumulative impact area to the extent possible. Therefore, with implementation of mitigation measures Bio-1B, Bio-1E, Bio-1F, Bio-1H, Bio-1I, and Bio-2A, development of CIP projects under the Master Plans would not result in a cumulatively considerable contribution toward impacts on wetlands within the regional cumulative impact area.

#### **4.3.6.4 Issue 4 – Wildlife Corridors**

As discussed above within Section 4.3.5.3 (Issue 2) and Section 4.3.5.5 (Issue 4), several CIP projects would have the potential to directly and indirectly impact habitat mapped within a designated corridor or linkage which may facilitate the movement of wildlife on a local and/or regional scale. CIP projects identified as occurring on or in the immediate vicinity of potential corridor and linkage habitat would be sited within the footprints of existing water district facilities or within small isolated areas on hilltop features surrounded by expansive, undeveloped land. The CIP project footprints would be limited in overall space, and confined, such that wildlife could continue to move through the local area and around the proposed developments. Potential impacts associated with the proposed pipeline CIP projects would be temporary, and all pipelines developments would be placed beneath the ground such that there would be no above-ground hindrances to wildlife movement during project operation. Due to the small size, limited above-ground disturbance, and temporary nature of construction activities associated with CIP projects, no adverse effects toward wildlife movement and nursery sites are anticipated to occur. Therefore, development of CIP projects under the Master Plans would not result in a cumulatively considerable contribution toward impacts on wildlife corridors and nursery sites within the regional cumulative impact area.

#### **4.3.6.5 Issue 5 – Local Policies and Ordinances**

As discussed above within Section 4.3.5.3 (Issue 2), Section 4.3.5.3 (Issue 3), and Section 4.3.5.6 (Issue 5), several CIP projects would have the potential to directly and indirectly impact sensitive habitat afforded further protection through local policies and ordinances, including ESHA resources protected under the Carlsbad CRPOZ Ordinance, and species and habitat resources protected under the Carlsbad HPMR Ordinance. As discussed above, sensitive habitats, including ESHA and Carlsbad HMP resources,

would be avoided and setback to the maximum extent feasible through project siting and design. The City and CMWD would compensate the loss of sensitive lands through creation, restoration, and/or enhancement measures at superior replacement ratios. Where creation, restoration, and/or enhancement measures would be implemented at off-site locations, they would occur within the watershed and regional cumulative impact area to the extent possible. Therefore, with implementation of mitigation measures Bio-1A, Bio-1B, Bio-1D through Bio-1I, and Bio-2A, development of CIP projects under the Master Plans would not result in a cumulatively considerable contribution toward impacts on resources protected under local policies and ordinances within the regional cumulative impact area.

#### **4.3.6.6 Issue 6 – Habitat Conservation Plans**

Regional conservation plans, such as the Carlsbad HMP, have been prepared to minimize regional cumulative impacts to natural habitats and the species that occur within those habitats. As discussed above within Section 4.3.5.7 (Issue 6), the only approved habitat conservation plan within the regional cumulative impact area is the Carlsbad HMP. With the exception of a single project, all CIP projects potentially affecting biological resources occur within Carlsbad. Impacts associated with CIP projects are primarily temporary and mostly associated with pipeline construction. Sensitive species and habitat would be avoided and setback to the maximum extent feasible through project siting and design. The City and CMWD will be required to prepare project-level biological resources studies; comply with the requirements of the Carlsbad HMP; obtain the appropriate agency approvals and permits, including an HMP Permit; and, implement specific avoidance, minimization, and compensatory mitigation measures consistent with the Carlsbad HMP and Carlsbad HPMR Ordinance. Therefore, development of CIP projects under the Master Plans would not result in a cumulatively considerable contribution toward impacts on habitat conservation plans within the regional cumulative impact area.

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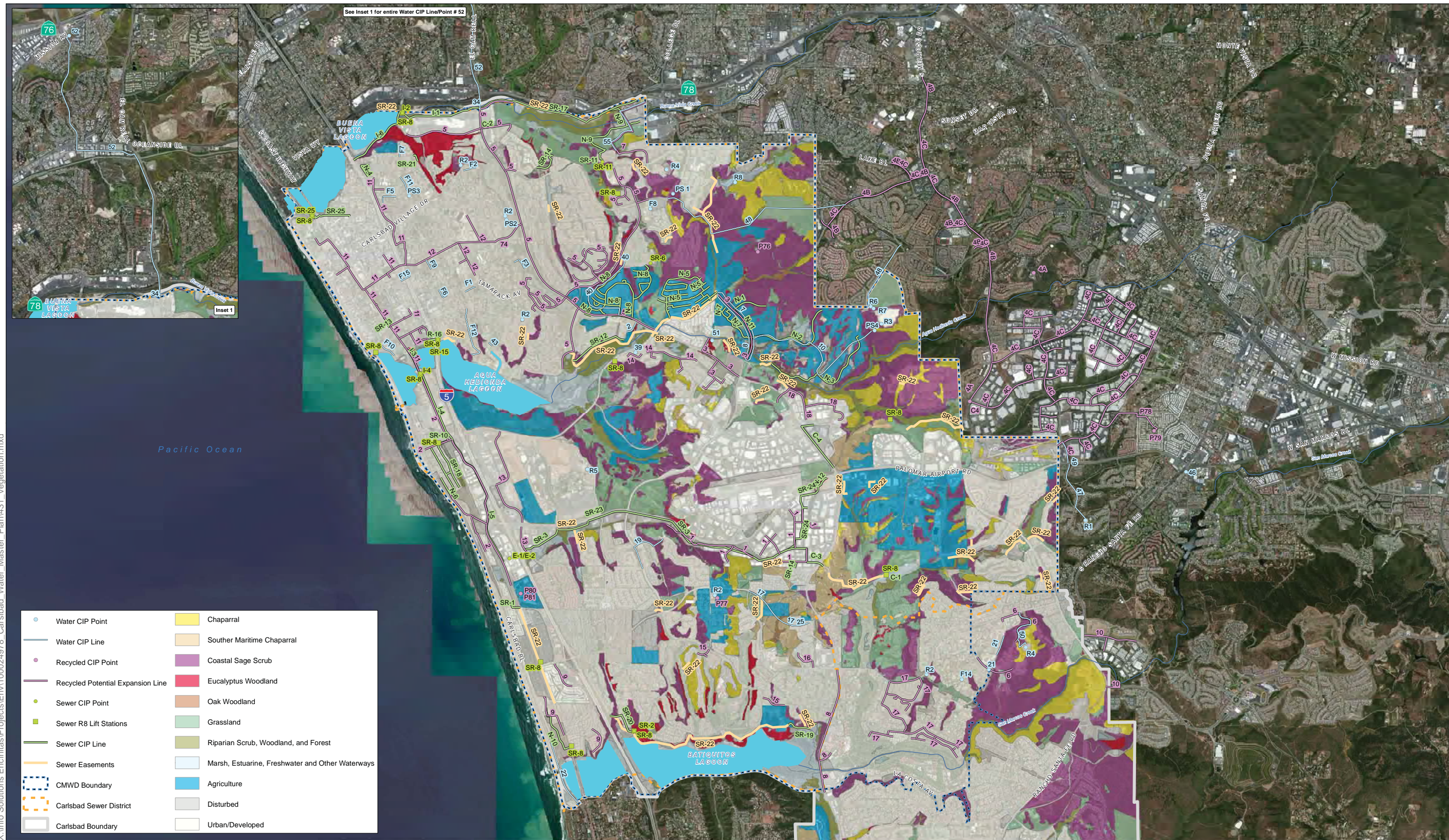
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Source: Bing, 2012, (City of Carlsbad, 1997 and 2011).

